AN

INQUIRY,

&c. &c.

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INQUIRY

INTO THE NATURE AND CAUSE OF THAT

SWELLING,

IN ONE OR BOTH OF THE

LOWER EXTREMITIES,

WHICH SOMETIMES HAPPENS TO

LYING-IN WOMEN.

Together with an Examination into the Propriety of

DRAWING THE BREASTS,

Of thofe who do, and alfo of thofe who do not give Suck.

By CHARLES WHITE, Esq. F. R. S.

Man-midwife Extraordinary, to the Lying-in Hofpital in Manchefter, &c. &c.

The Second Edition.

LONDON

Printed, for C. Dilly in the Poultry,

1792.

TO

JAMES FORD, M. D.

PHYSICIAN EXTRAORDINARY TO
HER MAJESTY

AND TO THE WESTMINSTER

LYING-IN HOSPITAL,

THESE SHEETS ARE INSCRIBED

BY

HIS MUCH OBLIGED

AND MOST OBEDIENT

HUMBLE SERVANT

THE AUTHOR.

AN

INQUIRY, &c.

BEFORE the practice of midwifery fell into the hands of men of ſcience, both the faculty, and others who were intruſted with the care of lying-in women, were apt to miſtake effects for cauſes, and attributed every diſorder, attendant upon that ſtate, to ſome defect, redundance, or obſtruction of the lochia or of the milk. Theſe general cauſes they aſſigned to eruptions, diarrhœas, miliary, puerperal, and other fevers; and being ſatisfied with this, they

were prevnted from inquiring any further into the nature of theſe diſorders. But thoſe, who have been ſtricter obſervers of nature, have found, that many of theſe complaints have exiſted, when ſuch diſcharges have been carried on with the greateſt regularity. This has been the caſe with that which is the ſubject of this inquiry. It has been attributed to ſuppreſſions of the lochia, to depoſits or redundancies of milk, or to cold; has been ranked under rheumatic, ſciatic, and dropſical complaints; and has been confounded with other diſorders. But I doubt not, I ſhall be able to prove, that it is a diſorder *ſui generis*, and proceeds from a cauſe not hitherto ſuſpected.

The French are the principal authors who have written upon this ſubject, but their works are not in the hands of every perſon, nor are they tranſlated into our language. Their

deſcription

deſcription of the diſorder is alſo very incorrect, and their mode of treatment inadequate. Mauriceau, in his treatiſe *des Maladies des Femmes Groſſes, et de celles qui ſont accouchées,* fifth edition, in 4to. printed at Paris in 1718, is the firſt author who has deſcribed this diſeaſe, under the title of *L'enflure des Jambes et des Guiſſes de la femme accouchée.* But this diſeaſe is not mentioned in the Engliſh edition, tranſlated by Chamberlain in 1716. It is therefore probable it had eſcaped the notice of Mauriceau, when he publiſhed his former editions. He attributes this complaint to a reflux of the lochia upon the part.

The next author on the ſubject is Puzos, who in a memoir intitled *Sur les depots laiteux appellés communement Lait repandu,* recites the ſymptoms of this diſeaſe, more accurately than any other author, under the article of

Depot laiteux ſur la cuiſſe. He attributes it to a depoſit of milk upon the part, though he acknowledges that it happens to thoſe who give ſuck, as well as to thoſe who do not. M. Puzos died in 1753, and this memoir was publiſhed along with his other works in 1759, by M. Moriſot Deſlandes, Docteur Regent de la Facultè de Medicine de Paris. But it muſt be obſerved, that the depoſition of milk was a favourite doctrine with him, in moſt of the diſorders of lying-in women.

M. Levret in his *Art des Accouchments*, chap, III. ſect. 7. *des Engorgemens laiteux dans le Baſſin, et aux Extremités inferieures*, adopts M. Puzos's doctrine.

Sauvages publiſhed his *Noſologia Methodica* in 1763, and in his claſs of *Dolores*, ord. 5, genus 31, ſpec. 5, terms it, *Iſchias a Sparganoſi.* His definition,

definition of it is, *Sparganosis ex Diascoride est Lactis redundantia, & inde ejus deviatio in alias partes.*

Van Swieten in his commentary upon Boerhaave's *Aphorism* 1329, gives a description of this disorder, but it is chiefly a quotation from M. Levret.

Dr. Astruc, physician to the king of France, attributes this disorder to the lymph being so fully charged with milk as to be rendered too thick to pass through the conglobate glands.

M. Raulin published his treatise *Des Maladies des Femmes en Couchée* in 1771. He describes this disorder under the article *Depots laiteux aux Aines, et aux Cuisses.* He says that milky depositions are formed in the glands of the groin, and thigh, and that one gland only is rarely affected, but the disorder may be traced down the inside of

of the thigh and leg by a chain of glands, from the groin, to the ancle, on the ſame ſide.

I CAN find little account of this diſorder in any Engliſh authors, and it is but ſlightly mentioned by the lecturers on midwifery, either in London or Edinburgh. Mr. Cruikſhank has favoured me with the following note, from the late Dr. Hunter's lectures. "They have imputed the *ſwelled limb* "which happens after lying-in, to a "*depot de lait*, but it is not;—from "ſomething wrong in the conſtitution, "the patient is ſeized firſt with pain "in the groin, the pulſe becomes ſmart, "and the part becomes tender; this "pain and tenderneſs get gradually "lower down and the muſcles are "ſtiffened into hard bumps, and an "œdema frequently ſucceeds the in"flammatory ſwelling.—It is generally "called a cold, but it is not. In ſome

"it

" it is over in a ſhort time, in others
" it will laſt ſome months.—It gene-
" rally does well."

Dr. Denman informs me, that he has deſcribed this diſorder in his lectures under the title of *Oedema Lacteum* which is a name ſomebody elſe has given it. He does not imagine, that it is a depoſit of milk, as it happens indiſcriminately to thoſe who do, and to thoſe who do not ſuckle; and without attending particularly to the inveſtigation of the cauſe, he has conſidered it as an affection of the whole glandular and lymphatic ſyſtem of the extremity.

The ſymptoms of this diſorder, when in its ſimpleſt ſtate, are theſe. In about twelve or fifteen days after delivery, the patient is ſeized with great pain in the groin of one ſide; accompanied with a conſiderable degree of fever, which is

is ſeldom preceded by a ſhivering fit or cold rigor. This part ſoon becomes affected with ſwelling and tenſion, which extend to the labium pudendi of the ſame ſide only, and down the inſide of the thigh, to the ham, the leg, the foot, and the whole limb; and the progreſs of the ſwelling is ſo quick, that in a day or two, the limb becomes twice the ſize of the other, and is moved with great difficulty, is hot and exquiſitely tender, but not attended with external inflammation. The pain in the groin is generally preceded by a pain in the ſmall of the back, and ſometimes by a pain at the bottom of the belly, on the ſame ſide; the parts which ſuffer the moſt pain are the groin, the ham, and the back part of the leg about its middle. The pain indeed extends over the whole limb, owing to the ſudden diſtention; but in a day or two it becomes leſs conſiderable. The ſwelling is general and equal all over the limb:

in every ſtage of the diſorder, it is much harder and firmer than in anaſarca; not ſo cold in any ſtate of the diſeaſe, nor ſo much diminiſhed by an horizontal poſition; neither does it pit when preſſed upon by the finger, nor any water iſſue from it, on its being punctured with a lancet. It is very ſmooth, ſhining, and pale, and even and equal to the touch in every part, except where the conglobate glands are ſituated, which in ſome caſes are knotty and hard, as in the groin, the ham, and about the middle of the leg, at its back part. This diſorder generally comes on about the ſecond or third week after delivery, but I have known one inſtance of its ſhewing itſelf ſo early as twenty-four hours after, and another ſo late as five weeks, but neither of theſe are uſual. The firſt parts that begin to mend, both as to pain and ſwelling, are the groin, and labium pudendi; the thigh next, and laſtly the leg.

The fever in ſome patients ſubſides in two or three weeks, in others it continues ſix or eight weeks, attended with quick pulſe and hectic ſymptoms. It ſometimes attacks both the extremities; but this rarely happens. After the diſorder has ſubſiſted a week or two, it is not uncommon for the ſound leg to ſwell towards evening, and become œdematous; but then the groin and thigh are not affected on that ſide, and the leg is much ſofter to the touch than the other, and pits when preſſed upon by the finger. This diſorder attacks women who are in full ſtrength, and thoſe who are reduced by flooding; thoſe who have a moderate diſcharge of the lochia, and thoſe who have a ſmall or large quantity; thoſe who give ſuck and thoſe who do not; whether their breaſts be drawn, or not; and whether they have a great deal, or little milk. It attacks women who were delivered on the knee, and others who were delivered

on

on the ſide; but of thoſe who were delivered on the ſide, it appears that the greater number were affected on that ſide, on which they lay at the time of delivery. It attacks women of all ranks and of different habits, both the rich, and the poor; the moſt healthful, as well as thoſe who have laboured under chronic diſeaſes; the ſtrong, and the weak; the lean, and the corpulent; the ſedentary, and the active; the young, and the middle-aged; after their firſt, or any other labour; and whether the labour be natural, or preternatural: but I have not known it happen after a miſcarriage, nor to a woman more than once, though ſhe has afterwards had more children. It happens at all ſeaſons of the year indiſcriminately; and in the country, as well as in large towns. It never attacks either of the arms, or other parts of the body. I have never known it to ſuppurate, or prove fatal, or any material inconvenience to ariſe

from

from it, after a few months were elapſed, except a little ſwelling of the leg, after fatigue, particularly walking.

CASE I.

MRS. A—— a lady of a delicate conſtitution, but perfectly free from any chronic diſorder, has had ten children. The firſt ſhe ſuckled for a little while, but ſuffered ſo much from ſore nipples, and inflammation of the breaſt, that ſhe was obliged to give it up. The ſecond, third, and fourth children, ſhe did not attempt to ſuckle, but had her breaſts drawn by a woman well accuſtomed to that buſineſs. Notwithſtanding this, on the eighth day after her fourth labour, in which ſhe was delivered as ſhe lay on her left ſide, ſhe was ſeized with pain in the back, groin, labium pudendi, and inſide of the thigh, on the right ſide. Theſe parts

parts were ſoon affected with ſwelling, which deſcended to the leg of the ſame ſide; its progreſs being ſo quick, that the whole limb was in the courſe of twenty-fourth hours diſtended to twice its natural ſize, was incapable of motion, and attended with conſiderable pain, and ſymptoms of fever, ſuch as quick pulſe, heat, and thirſt. The violence of the pain abated in a few days, but ſhe was confined for five or ſix weeks, and did not recover the entire uſe of her limb for three months. She had never been out of her room, and had no reaſon to ſuſpect having got cold. Her fifth child ſhe attempted to ſuckle, but was ſoon obliged to give it up, her breaſt and nipples gave her ſo much pain. After her ſixth and ſeventh labours, ſhe had her breaſts drawn, but ſuffered ſo much from them, that I adviſed her, if ſhe ſhould have any more children, never to have any thing done to them that ſhould either invite or

repel the milk, but leave it entirely to nature. She followed this method in her three laſt lyings-in, and recovered ſo much better and ſooner, than ſhe had done of the others, that ſhe has declared to me, if ſhe were to have twenty children, ſhe would purſue no other method. This lady's conſtitution never ſhewed any ſigns of acrimony, except the complaint in her nipples and breaſts, at the time of ſuckling, could be called ſuch.

CASE II.

MRS. B—— has had ſeven children, and ſuckled all of them, except the laſt. She is a lady of a delicate conſtitution, which has been much harraſſed by bearing many children, in a ſhort time. She was delivered of her ſixth child, as ſhe lay upon her right ſide, and had a tolerably eaſy

eafy labour. About three days after delivery, fhe was a little feverifh, but foon got better. In about four weeks, fhe was feized with pain in her back, which defcended the next day into the groin, and infide of the thigh on the left fide, and the whole limb foon became very painful, which, with the left labium pudendi, was much fwelled. Thefe fymptoms were attended with fever. The lochia and milk were in proper quantities. The upper part of the thigh, and ham, were the parts that were moft painful. The upper part of the thigh began firft to mend, and fhe can perceive that leg is ftill apt to fwell in an evening after fatigue, particularly after walking. She has had another child fince, which was born dead. I therefore advifed her not to do any thing to her breafts, and fhe found not the leaft inconvenience. This lady has for many years been troubled at times with pains in the head, and face, and inflam-

mation

mation of the eyes; and when a bliſter is applied, the part is apt to inflame, and be troubleſome. This may perhaps be ſaid to be owing to a degree of acrimony.

CASE III.

MRS. H—— of Clowes's-ſtreet, Salford, aged 35, was delivered by Mr. Slack of her ſixth child, on the 10th of January, 1782, at the full period of geſtation, as ſhe lay upon her left ſide, of a child which died during the time of labour. The lochial diſcharge was ſmall. She had her breaſts drawn; but the third day after delivery, her belly became very painful, and ſwelled, when her milk left her; this was ſucceeded by a looſeneſs upon the 8th, which continued till the 10th, when ſhe was ſeized with a violent pain in the ſmall of the back on the left ſide, which extended into the groin, labium pudendi,

pudendi, thigh, and leg of the ſame ſide, which ſwelled to a great ſize. After the limb was ſwelled to its full extent, the pain was confined to the groin, ham, and middle of the leg at the back part; ſhe had the diſorder very ſeverely, and continued lame many months. She has had another child ſince, without any return of the diſorder, but her left leg continues to ſwell, particularly towards evening, and after walking.

CASE IV.

MARY DAWSON, of Red Bank, Mancheſter, aged 39, was, after a very hard labour, delivered by Mr. Richard Hall, on May 20, 1782, of her fifth child, which was dead, and very putrid. She was afterwards made a home patient of the Infirmary, under the care of Dr. Cowling. About five

weeks before her delivery, ſhe was ſeized with a flooding, which ſtopped, but returned again to a great degree juſt before ſhe was delivered. She had ſeveral attacks of rigor both before and after her labour; and her breaſts were drawn, but ſhe had little or no milk. The lochia were moderate but putrid. In about a month after delivery, ſhe was ſeized with pain in her back, which extended down to the right groin, labium pupendi, thigh, and leg, accompanied with a conſiderable degree of ſwelling. In three or four days the other ſide became affected in the ſame manner, but the diſorder was not tranſlated from one ſide to the other, for both were equally ſwelled at the ſame time, though they did not begin together. The principal ſeats of pain were, the groins, hams, and back parts of the middle of the legs. From ſome troubles in her family, ſhe afterwards became diſordered in her mind, and

and was removed into the lunatic hoſpital, but is now perfectly recovered of all her complaints.

CASE V.

MARY BROWN, of Salford, aged 22, a very healthful young woman, was delivered of her firſt child on June 6, 1782, as ſhe lay puon her left ſide; the child died ſoon after, but her breaſts were well drawn, and her lochia moderate; on the ninth day after delivery, ſhe was ſeized with a violent pain in her left groin, which ſoon began to ſwell, and in a few hours the pain and ſwelling extended to the labium pudendi, thigh, and leg of the ſame ſide, which became very tenſe and hard. The parts which were particularly painful were, the groin, the ham, and back of the leg about the middle. She had the diſorder very ſeverely, and the lower

part of the leg is ſtill a little ſwelled and hard; ſhe is pregnant again. She was delivered by Mr. Travis, and afterwards made a home patient of the Infirmary, and attended by D. Eaſon.

CASE VI.

PHŒBE WATERS, of Church-ſtreet, Mancheſter, aged 48, was delivered of her twelfth child, on the 20th of December, 1782, by Mr. Slack, as ſhe lay upon her left ſide. She thought ſhe was only ſeven months advanced in her pregnancy, but it was a preternatural birth, and the child was obliged to be turned: it was ſtill born, but was full as large as her firſt child, which was born alive, and is yet living. Her breaſts were well drawn, and ſhe had no complaints for ten days, when ſhe was ſeized with an acute pain and ſwelling in her belly on the right ſide, and

and with a violent forcing pain, almost similar to labour pains. In three or four days more she had a difficulty in making water, and on the 19th she had a total suppression of urine, which was obliged to be drawn off with the catheter four or five times. She had a fever, diarrhœa, and a large discharge, similar to the fluor albus. Dr. Cowling was desired to see her. She was examined by Mr. Slack per vaginam, and a fulness and bearing down were perceived on the same side. In little more than three weeks after delivery, the pain descended into the groin, labium pudendi, thigh, and leg of the same side, which swelled to three or four times the natural size, and were very tense and painful. The parts which remained more particularly painful, were the groin, ham, and back part of the middle of the leg.

CASE VII.

MARTHA WILKINSON, of Red Lion Street No. 8, Mancheſter, aged 42, was delivered of her ſeventh child December 25, 1782, upon the knee by a midwife. She ſuckled her child. Lochial diſcharge regular. On the ninth day after delivery, ſhe was ſeized with a pleuritic ſtitch on her right ſide; on the thirteenth ſhe was attacked with pain in her left groin, and labium pudendi, which deſcended to the thigh and leg of the ſame ſide, accompanied with hardneſs and tenſion. The parts that were afterwards particularly painful, were the groin, the ham, and about the middle of the leg at the back part. She was admitted a home patient of the Infirmary, under the care of Dr. Eaſon. A little ſwelling and hardneſs ſtill remain in the

leg, eſpecially towards evening. This woman has never had any chronic diſorder, but is much inclined to corpulency.

CASE VIII.

ELIZABETH ROTHWELL, of Gravel-lane, Salford, a very healthful young woman, aged 24, free from any chronic diſorder, and who had always enjoyed a moſt perfect ſtate of health, was delivered of her ſecond child, as ſhe lay upon her left ſide, on the 19th of January, 1783, by a midwife; had an eaſy time, and ſuckled her child. She was kept very warm, never went out of her room, nor did any thing by which ſhe could poſſibly catch cold, till twenty days after delivery, when a window was opened in the room about a minute or two. In an hour after, ſhe was ſeized with a pain in her

right ſide, and ſhoulder; but had no cough; ſhe was bled, which eaſed the pain. Two days after, ſhe was attacked with pain in the groin, labium pudendi, thigh, and leg of the ſame ſide, which ſwelled, and then the pain abated. The parts were tenſe and hard, attended with fever. She was made a home patient of the Infirmary under the care of Dr. Bell, and is now got perfectly well.

CASE IX.

MRS. D—— a perſon of a delicate habit, fair and florid complexion, and ſubject, in ſome degree, to the complaints uſually termed ſcorbutic, was delivered of her firſt child, after a tolerably eaſy labour, in which ſhe was laid on her right ſide. On the third or fourth day, her breaſts began to be turgid, but as ſhe did not intend

to

to ſuckle, they were not drawn; and after a conſiderable ſecretion of milk, they ſubſided gradually, with no apparent inconvenience or diſturbance. She ſeemed to recover extremely well, and in a little more than a fortnight was able to walk down ſtairs. At the end of about three weeks, ſhe ſeemed rather loſing ground again, her appetite growing worſe, with fluſhings and heat, and little ulcers in the mouth. Livid blotches appeared in various parts, eſpecially in her arms, and ſhe grew low and weak. At the end of four weeks, her complaints continued, with a pretty large and offenſive diſcharge per vaginam, attended with violent forcing pains, and excoriation. Her pulſe was quick her tongue foul, ſhe had great pain in her back on getting up, or ſitting down, and a conſtant ſenſe of chillneſs beginning from the lumbar vertebræ. Soon after this the right groin, thigh, and labium pudendi, began

began to ſwell; the ſwelling very ſoon extended to the leg, and the whole limb became greatly tumefied, with much pain, eſpecially on motion. By this time, the ſore mouth and livid blotches began to diſappear, and the feveriſh heats were abated. The ſwelling of the extremity increaſed for ſome days, till it was very tenſe, ſhining and marbled, but without inflammation. The upper part of the thigh, and the ham, were the moſt tight and painful. In a few days more, the ſwelling of the thigh was ſenſibly diminiſhed, and that of the leg had more of an œdematous appearance, but was hard, and did not pit when preſſed upon by the finger, as in anaſarca; the pain entirely went off, and ſome power of motion began to return. At the ſame time all the other complaints abated, and ſhe began to recover her appetite and ſtrength. A quickneſs of the pulſe however remained, and an acrimonious fluor albus, with ſome

degree

degree of forcing pain. By the end of the ſecond month, ſhe was ſufficiently recovered to go abroad, but the other leg ſwelled towards night, and was truly œdematous. In the beginning of the fourth month, only a ſmall ſwelling of the leg remained, with a little fluor albus; ſhe recovered perfect health in the courſe of that month, except a trifling ſwelling of the leg in an evening.

C A S E X.

MRS. E—— was delivered of the firſt child by a midwife, as ſhe lay upon her left ſide, and had a natural labour. She did not ſuckle her child: her breaſts were not drawn, nor was any thing done to them either to invite or repel the milk. No fever, pain, or other diſagreeeble ſymptoms came on, but ſhe recovered as faſt as could be wiſhed for about a fortnight, when ſhe was

was ſeized with violent pain in the groin, thigh, &c. of the left ſide, all which ſwelled to a great ſize, became pale, tenſe, hard, and ſhining, attended with a quick pulſe. After ſome days, the right ſide was ſeized in the ſame manner, and underwent the ſame progreſs, recovering later, but the diſorder was not tranſlated from one ſide to the other.

It will be neceſſary to remark, that this lady enjoyed very good health, till within two months of her delivery, when ſhe had an eruption all over her body, attended with violent itching, which continued after her delivery, but in a leſs degree, and gradually went off.

CASE XI.

BEATRIDGE ABBOT of Oldham ſtreet, a very healthful young woman, of 19, perfectly free from any ſcrophulous or ſcorbutic acrimony, or eruptions of any kind, and who had never any complaint in her life, except the heartburn, was delivered of her firſt child by Mr. Slack, on the 27th of March, 1783, as ſhe lay upon her left ſide, had a natural labour, and ſuckled her child. On the ſixth day after delivery, ſhe complained of pain in her belly. On the ſixteenth ſhe was ſeized with violent pain in the groin, thigh, &c. on the left ſide, which ſwelled much; when ſhe applied to me. Beſides the parts that are commonly painful in this diſorder, ſhe complained of much pain in the inſide of the leg, rather below the middle, where there is ſome-

times

times a conglobate gland. She does not recollect doing any thing, ſhe ſays, which could occaſion this complaint, except waſhing her hands in cold watter. She recovered perfectly in leſs than three months.

CASE XII.

MARY ASHTON, of Salford, aged 43, was delivered, by Mr. Slack, of her third child, as ſhe lay upon her left ſide, on the 1ſt of April, 1783. The labour was a preternatural one. On the 12th day after delivery, ſhe was ſeized with a pain in the ſmall of the back, on the left ſide which ſoon extended down to the groin, labium pudendi, thigh, leg, and foot of the ſame ſide, which ſwelled to a great ſize. The glands of the groin, ham, and middle of the leg at the back part, were much enlarged, and very painful.

She

She did not ſuckle, her child, it dying ſoon after birth ; nor had ſhe her breaſts drawn. She recovered ſo faſt, though ſhe had the diſorder very completely and ſeverely, that ſhe was nearly well in five weeks ; but upon going out, and walking much, her leg ſwelled again to a great degree, and was as much ſwelled in a morning before ſhe got out of bed, as in an evening. She was admitted a home patient of the Infirmary, under the care of Dr. Eaſon.

THIS woman, infroms me, that ſhe never had any glandular complaints, or ſymptoms of acrimony, or dropſy, or rheumatiſm, or obſtructions of any kind, or indeed ever had a day's illneſs in her life, till ſhe was pregnant of her firſt child, which is about ſeven years ago.

CASE XIII.

SARAH BARTON, of Manchefter, a healthful woman, aged 33, was delivered by a midwife, as fhe lay upon her belly, on the 16th of Auguft, 1783. This was her fifth parturition, and was rather a laborious one. In a few days after delivery, fhe complained of pain in the lower part of her belly, on the right fide, juft above the groin; and on the 9th, fhe was feized with great pain and fwelling in the groin and labium pudendi of the fame fide, which defcended to the thigh and leg. She fuckled her child till the 15th, when it died; but though fhe was very ill of this diforder at that time, and her milk went away very fuddenly after its death, fhe recovered as faft as any I have feen. She was admitted an out patient of the Infirmary under my care. I punctured

the leg with a lancet in ſeveral places, but no water iſſued, as it does in anaſarca.

CASE XIV.

BETTY GRIME, of Bolton, aged 34, was delivered, on the 24th of November, 1781, after a very violent labour, the child having reſted a long time at the brim of the pelvis. Whilſt ſhe was in a ſtanding poſture, ſhe had a ſtrong pain, and thought ſhe perceived ſomething within her, break on the right ſide of the belly juſt above the groin. She was delivered upon the knee, the next pain. In twenty-four hours after, ſhe was ſeized with violent pain and ſwelling in the groin, and labium pudendi of the right ſide, which deſcended to the thigh and leg. Her lameneſs and ſwelling continued till the middle of her next pregnancy, and were

always much increaſed upon walking. She was delivered in bed of her next child, after a leſs laborious but lingering parturition, and has had no return of the diſorder.

Mr. Smith, of Stoke Newington acquaints me, that he has met with ſeven or eight inſtances of this diſorder, in which the complaint was exceedingly troubleſome. It always began in about fourteen or fifteen days after delivery, and moſtly on that ſide on which they were delivered, (viz. the left). In one inſtance both ſides were affected. In moſt of the caſes, it happened in firſt labours, which were commonly lingering and hard.

Mr. Pool, of Altringham, who has great practice in midwifery amongſt the farmers' wives in Cheſhire, informs me

me that he has attended ſeven women who had this diſorder. They were all delivered as they lay on the left ſide, and they all ſuckled their children. Six of them had the diſorder on the left ſide only. Four of theſe were attacked with it in a fortnight after delivery, one in three weeks, and another in forty-eight hours. The ſeventh was attacked on the right ſide, in five weeks after a very hard labour.

Of the fourteen caſes which I have related, I have either attended the patients myſelf, or have converſed with them ſince their recovery, concerning their ſymptoms, and have had an account of their caſes from the gentlemen who attended them during their confinement, and have been ſo obliging as to favour me with every poſſible information.

It may perhaps be thought, that I have introduced more cafes than were neceffary to prove the fame thing; but we cannot build a theory upon a fingle cafe or two, where fo many accidental fymptoms may occur. We can only judge from a number of cafes, where they all concur in one or more leading fymptoms.

Nature and Cause of the Disorder.

BEFORE I endeavour to explain the nature and caufe of this difeafe, it may be proper to point out its difference from other diforders, to which it bears fome refemblance; and to prove that it does not originate from the caufes to which it has commonly been attributed.

It appears very evident that it is not a ſciatica, as it does not attack the hip joint in particular, but the groin and labium pudendi of the ſame ſide, the inſide of the thigh, leg, and foot, and the whole limb.

It is not a rheumatiſm, as neither the joints nor muſcles are principally affected; nor is there any external inflammation, but on the contrary, the ſkin is rather paler than in a natural ſtate; and it has attacked thoſe who never had the rheumatiſm, either before or ſince, and thoſe who have not had any ſuſpicion of catching cold.

It is not an anaſarca, becauſe it is more tenſe and hard, and does not pit when preſſed upon with the finger, nor ſubſide ſo much by an horizontal poſture; nor does any water iſſue from it, on its being punctured; nor is it ſo cold in any ſtage of the diſorder. Fur-

ther, it always begins either at the ſmall of the back, or at the groin and upper part of the thigh, and labium pudendi on one ſide; whereas, the anaſarca and the ſwelling of the lower extremities in women with child, or thoſe reduced by illneſs, begin in the ſmall of the legs and feet, and afterwards aſcend, and attack both the lower extremities, which are generally cold.

It is not a phlegmon, or an eriſipelas, as there is neither external inflammation, nor eruption; and though one labium pudendi is greatly ſwelled, it never extends to the other in the ſmalleſt degree, except the limb on that ſide is alſo ſwelled; neither is it an iliac abſceſs, or an abſceſs under the faſcia lata, as it never comes to ſuppuration.

It cannot be owing to any defect of the lochia, as it happens to thoſe who have the moſt regular diſcharge: neither

neither to a *redundancy* of milk, as it happens to thoſe who have had many children, and are betwixt forty and fifty years of age, and to thoſe who have had ſeveral children without ſuckling them: nor to a *depoſit* of milk as it happens under every circumſtance attending that ſecretion, and under every different treatment of the breaſts: and if it were in any meaſure owing to the milk, why ſhould it be confined to one, or, at moſt, to both of the lower extremities; and why ſhould the arms be particularly exempted from it, which, from the connection the breaſts have with the axillary glands, one would imagine would be firſt and principally affected?

It cannot proceed from a metaſtaſis, or tranſlation of matter of any kind; as it happens when there has been no previous illneſs, and frequently without a ſhivering fit, or rigor, and never to

to one part only of the limb, but the line is ſo diſtinctly drawn, that the whole and every part of the limb, and the labium pudendi of that ſide only, is always ſwelled.

It cannot be properly called a diſeaſe of the arteries, veins, nerves, muſcles, or bones, as it is not accompanied with any ſymptoms attendant upon diſorders of theſe organs. It cannot be owing to any degree of acrimony, as it happens to thoſe who have never ſhewn any ſigns of it; but it is not at all ſurpriſing that ſymptoms of acrimony ſhould ſometimes ariſe during the courſe of the diſeaſe.

It cannot be an affection of the whole glandular or lymphatic ſyſtem, as it is confined to the lower extremities, and frequently happens to thoſe who have never ſhewn at any other time, or in any other part, ſymptoms

of ſcrophula, or obſtructions of the glands; and becauſe it is an acute diſorder; the latter, generally, if not always, a chronic one.

FROM theſe premiſes, and from the hiſtory I have given of the diſeaſe, I think we may conclude,

1. THAT the PROXIMATE CAUSE of this diſorder is an *obſtruction, detention, and accumulation of lymph* in the limb.

2. THAT the lymphatics are obſtructed as high, at leaſt, as where they enter the pelvis, under Poupart's or Fallopius's ligament; ſince every part is ſwelled to which the lymphatics, which are beneath that place, extend, as the groin, labium pudendi, thigh, leg, and foot of one ſide; and every conglobate gland is painful, ſuch as thoſe in the groin, ham, and back of the leg.

3. THAT

3. THAT the lymph ſo obſtructed is in a ſound ſtate; as the parts are ſo much more tenſe and hard than in anaſarca, and as no water iſſues on the parts being punctured; for lymph in a ſound ſtate is thick and gelatinous, in a diſeaſed ſtate thin and watery. *

4. As this diſorder happens only to lying-in women, and affects the lower

* "As we have remarked of a rupture of the "lymhatic veſſels in an animal in health, that "the fluid which eſcapes will coagulate; ſo we "may obſerve of a wound of ſuch a veſſel, the "lymph which oozes from it, if the perſon be in "health, will not be a mere water, but will be "like the coagulable lymph of the blood, in jelly-"ing on expoſition to the air, only a little later "than the blood itſelf does. A caſe of this ſort I "ſaw in a butcher, who, by letting his knife fall "upon his ſhin, cut ſome of the large lymphatic "veſſels which paſs over the *tibia*, as repreſented at "*(cc)* Plate I. From this wound there flowed a "conſiderable quantity of clear lymph, which, "being confined by the dreſſings, jellied, and then, "at firſt ſight, appeared like a whittiſh *fungus*, but "being looſe, could be removed with a *ſpatula*."

Hewſon's Exp. Inq. Part II. p. 198.

extremities only, we may conclude that this obſtruction is occaſioned by ſome accident happening during the time of labour, or ſome ſtate peculiar to child-bed.

5. THAT it is a local diſorder, and has a local cauſe.

THOUGH the proximate cauſe appears very evident, perhaps the REMOTE CAUSE may not be ſo clear, and probably will not be preciſely aſcertained, till it be proved by diſſection; and it may be a long time before ſuch an opportunity offers, as this diſorder has never been known to prove fatal. The diſcoveries which have lately been made in the lymphatic ſyſtem may give ſome aſſiſtance; and a ſhort account of its veſſels and glands, chiefly extracted from Hewſon's and Flaconar's *Experimental Inquiries*, may not be improper in this place.

IN

In the lower extremities there are two ſets of lymphatic veſſels, the ſuperficial, and the deep-ſeated. Their coats are furniſhed with arteries, veins, and nerves, are endued with ſenſibility, and are ſuſceptible of inflammation. A ſuperficial one may be traced from the toes along the upper part of the foot, along the inſide of the leg to the ham, from thence along the inſide of the thigh to the groin ; the deep-ſeated ones accompany the artery called tibialis poſtica, and the crural artery, and join the ſuperficial at the groin, where they are likewiſe joined by thoſe from the genitals : they there ſometimes form one common trunk,* but more frequently a number of trunks ; theſe lie cloſe upon the inguinal artery, or by its ſides, paſs under the edge of the external oblique muſcle, called

* For this fact I have the authority of Mr. Cruikſhank.

Poupart's

Poupart's or Fallopius's ligament, and appear upon the ſides of the oſſa pubis, near the pelvis. A part of them then paſs up along with the iliac artery, upon the brim of the pelvis, and another part dips down into the cavity of the pelvis. In many places they paſs under and over the arteries, and under ſome of the muſcles, in their courſe from the feet. The valves in the lymphatics are more numerous than in the veins, there being ſomtimes ſeven or eight pair in an inch. They are leſs numerous in the thoracic duct than in the branches of the ſyſtem; whence it might be ſuppoſed, that in proportion as we go from the trunk to the branches, we ſhould find them thicker ſet: but this is not always true, for they have been obſerved more numerous in the lymphatic veſſels of the thigh, than thoſe of the leg. The conſtruction of the valves is beſt deſcribed by Dr. Winterbottom, in his inaugural Theſis,

Thesis,* p. 11. "Parabolæ figuram "valvulæ exhibent, concava cujus su-"perficies ductum thoracicum, con-"vexa partem vasis a corde remotiorem "spectat. Eas arctè claudere creditur, "unde lympham in ramos majores "facillime propelli, non autem in mi-"nores repelli, sinant."

THERE are likewise conglobate or lymphatic glands, through which the lymphatics pass; these are situated chiefly about the middle of the leg, in the back part, in the ham, and in the groin, and sometimes there is one in the inside of the leg, rather below the middle, belonging to the superficial lymphatics. There are other glands lying on the edge of the pelvis. About a quarter of an inch before a lymphatic enters a gland, it divides into two, three, or four smaller branches, some-

* Edinburgh, 1781.

times

times into a greater number. Theſe enter the gland at the part fartheſt from the thoracic duct, and are then ſub-divided into branches as ſmall as the ramifications of the arteries and veins, and which they accompany to every part of the gland. After being thus minutely divided, they re-unite, and gradually become larger as they approach the oppoſite ſide of the gland, forming three or four branches, which are joined by other lymphatics that ariſe from the cells of the gland. All theſe branches unite about a quarter of an inch from the part where they come out of the gland, and form a common trunk, but larger, by the additional lymphatic veſſels it receives from the cells of the gland.

Different conjectures may be formed with regard to the remote cauſe of diſorder. It may be ſaid to be owing to an inflammation brought on

the trunk or trunks of the lymphatics, by the preſſure of the child's head on them during the proceſs of labour, or on the glands through which theſe trunks muſt paſs, and which lie on the edge of the pelvis. This may produce an adheſion of the cells of theſe glands, and make them impervious, and cauſe a ſtagnation of lymph in the extremity, and thereby produce the diſeaſe in queſtion. The glands may perhaps in time recover themſelves, or the abſorbents below the glands may go round, and take a new road. The objection to this theory is, that the diſorder moſt frequently does not appear till ſeveral weeks after delivery, whereas one would have expected it always to have appeared in a few days, which ſeldom happens.

Another conjecture may be, that the remote cauſe is a laceration during labour, of Poupart's ligament, or the peritonæum

peritonæum, or both; and that when the fibres of theſe are united again, they compreſs the trunks of the lymphatics, and bring on this diſorder; but if this were the caſe, they would likewiſe compreſs the crural veins, and prevent the return of the blood, as well as the lymph, which does not appear to be the fact.

Is it not therefore more probable, that this diſorder is owing to the child's head preſſing the lymphatic veſſel or veſſels which ariſe from one of the lower extremities, againſt the brim of the pelvis, during a labour pain, ſo as to ſtop the progreſs of the lymph? The number of valves will effectually prevent it from regurgitating, and if the head continues any time preciſely in that ſituation, while the lymph is driven on through the valves, by the periſtaltic contraction of the coats of its veſſels, by the great exertion of the

muſcles, and the ſtrong vibration of the inguinal artery, which are greatly increaſed by the labour pains, the lymphatic veſſel, though its coats ſhould be allowed to be ſtronger than thoſe of the blood-veſſels, muſt at laſt burſt and ſhed its contents. In ſome conſtitutions, the lymph which eſcapes out of the orifice, will be abſorbed again by thoſe lymphatics about the pelvis, without creating any diſturbance in the ſyſtem; in others, it may not be ſo readily abſorbed, and by lying out of the courſe of its circulation, will preſs againſt the uterus and bladder, and occaſion forcing pains, and even ſuppreſſions of urine;* and though a very innocent fluid when circulating within its own veſſels, it may become much otherwiſe when ſtagnating out of them.

* Vide Caſe VI.

WHEN

When the orifice made in the lymphatic is healed,* and the diameter of the tube is contracted, or perhaps totally closed by the cicatrix, the lymph is retained in the lymphatic vessels and glands of the limb and labium pudendi, and distends them to such a degree, and so suddenly, as to occasion great pain and swelling, which always begin in that part next to which the obstruction is formed; and when the obstruction is in part or wholly removed, or the lymph has found a fresh passage, the part next to it is consequently first relieved. This may be elucidated by a case nearly similar, exactly corresponding in point of time, and is the only complaint I know, to which it bears the least similitude,

* Itaque, si vel scindantur vel dilacerentur, ea æque ac arterias conglutinari, multoque facilius sanari, certiores sumus facti.

Winterbottom, Tent. Med. Inaug. de Vas. Absorb.

 and

and proves as much as can be proved by analogy. When we perform the operation for lithotomy, we frequently lacerate or cut through the carunculæ, called verumontanum, or caput gallinaginis, in ſuch a manner, as to wound the orifice of one or both ducts, or the ducts themſelves, which come from the veſiculæ ſeminales, particularly that on the left ſide. The ſemen I ſuppoſe mixes with the matter, and urine, which flow through the wound, ſo as not to be diſtinguiſhable, nor is any inconvenience perceived till the wound heals; when the orifice of the duct, at the verumontanum, is cloſed by the cicatrix, in ſuch a manner as to prevent the free exit of the ſemen; then the teſticle ſwells and is extremely painful; and this generally happens very unexpectedly about the ſecond, third, or fourth week, when the patient has had no ſhivering fit, nor ſymptomatic fever, and ſeems to be free

free from all complaints. The ſame thing ſometimes happens from wearing a bougie, which brings on an irritation and inflammation of the verumontanum, and cloſes one or both of the ducts.

No wonder, that the pain ſhould come on ſo very ſuddenly, and the ſwelling in ſo ſhort a time arrive to ſuch a magnitude, if we conſider the great quantity of lymph that is circulated through the lymphatics ;* and as lymph in a ſound ſtate is found to be thick and gelatinous, and is in this caſe unaltered, it is not ſurpriſing that the limb ſhould be more tenſe and hard than in anaſarca, where it is found to be watery ; nor that a fever ſhould

* Mr. Patch, of Exeter, in Vol. V. of the *Medical Eſſays*, p. 399, relates the caſe of a boy of eleven years of age, who from an almoſt imperceptible orifice near the left groin, diſcharged, in three days, not leſs than two quarts or five pints of lymph.

be created by the ſudden diſtention and conſequent irritation of the parts; nor is it to be wondered at, that the conglobate or lymphatic glands ſhould be particularly painful, as they are known to be well ſupplied with nerves: and accordingly we find, that the pains are moſt felt, and of longeſt duration, in the groin, ham, and back of the leg, where theſe glands are always ſituated; and it is worthy of obſervation, that one patient, Beatridge Abbot, Caſe XI. had great pain in the inſide of the leg, where there is ſometimes, and but rarely, a conglobate gland ſituated.* Further, it is not ſurpriſing that the whole ſyſtem, particularly the lymphatic and glandular, ſhould be diſordered by the ſtagnating of ſo much lymph, as is contained in one of the lower extremities, for ſo conſiderable a time; nor that the ſwelling ſhould always

* Plate I. (d)

be increafed by exercife, particularly walking, till the lymphatics have recovered their ufual diameter, and their tone, as all mufcular motion muft increafe the quantity of lymph.

If the above hypothefis be true, the PREDISPONENT CAUSE may, in all probability, be a weaknefs of the coats of the lymphatics, in fuch fubjects only, as have thefe veffels formed into one principal trunk under Poupart's ligament.

There is another diforder fomething like this in its external appearance, but of the chronic kind, not attended with any pain or fever, and which attacks both fexes; of this I have feen feveral inftances, which have been of many years ftanding. In fome it feizes an arm, in others a leg and thigh; a cafe of each fort I have under my care at this time; but in that where the leg and thigh is

 difeafed,

difeafed, the labium pudendi is not affected. In fome it feizes both the legs, of which Mr. Hewfon* has mentioned two cafes. " In like manner, the cellu-
" lar membrane is fometimes filled with
" a gelatinous fluid, which does not
" ooze out, when the integuments are
" fcarified, nor does it retain the im-
" preffion on being preffed with the
" finger, as in the common anafarca:
" this was remarkable in a woman who
" was in St. George's hofpital a few
" years ago, and who at the fame time
" had an obftruction of her menfes, but
" no other fymptom of ill health. The
" legs in this woman were fwelled to
" twice their ordinary fize, but did not
" pit on being preffed with the finger.
" A cafe of the fame fort may now be
" feen in one of the nurfes at St. Bar-
" tholomew's hofpital,"

PERHAPS it may be faid, that the two cafes I have produced, in one of which

* Exp. Inq. Part II. p. 197.

(viz.

(viz. Cafe XIV.) the fwelling appeared in twenty-four hours after delivery; and in the other (viz. a cafe mentioned by Mr. Smith) in forty-eight hours, may be an objection to the theory of the burfting of a lymphatic veffel, as this would be too fhort a time for it to heal in; but the time of healing muft depend upon circumftances, fuch as the conftitution of the patient, and the nature of the orifice. They however afford a further proof, that this diforder is not owing to a depofit, or a redundancy of milk, as neither of thefe could poffibly happen in fo fhort a time, when there could not have been even a fecretion of it; but this needs no refutation, as I believe, from the numerous correfpondents who have favoured me with their opinions on this fubject, that there is not a man of eminence either in England or Scotland, who imputes it to that caufe.

DR.

Dr. Monro, professor of anatomy at Edinburgh, informs me, "that he "inflicted a wound on the receptaculum "chyli of a pig, which was cured in "a very short space of time; and, in "the mean while, very little lymph "was effused; for by its coagulation "the effusion was prevented." But this is not always the case, especially in wounds either of the lymphatic vessels or glands situated in the extremities, as every surgeon of moderate practice must have experienced; examples of which are produced by Mr. Patch, and Mr. Hewson, whose cases I have already quoted, and by Dr. Monro, senr. in the fifth volume of *Med. Ess.* p. 395.

CURE.

THE method of cure which seems to have succeeded the best in this disorder happily coincides with the

the theory I have given of it; and the mode of conducting the patient through it, muſt vary according to the different ſtages of the diſeaſe. The firſt, which may be called the inflammatory, muſt be treated in the antiphlogiſtic method; but as this inflammation is not the original diſeaſe, but a ſymptom only, occaſioned by the diſtenſion of the lymphatic veſſels and glands, it is not neceſſary or prudent to waſte the patient's ſtrength by large evacuations. The inteſtinal canal muſt be kept open by gentle aperients and clyſters; and the pain muſt be alleviated by opiates internally, by anodyne fomentations, and by the warm and vapour bath. Bliſters applied to the upper part of the thigh have generally been found of much advantage, by diminiſhing the quantity of lymph retained in the limb, and by taking off the irritation from the part originally affected. The fever muſt be moderated by antimonials,

 cooling

cooling medicines and diet; and I have generally found it uſeful, to give two or three grains of James's powder, made into a bolus with conſerve of hips, three or four times a day, waſhing it down with the following draught.

R. Aquæ cinnammomi ſimplicis drachmas decem,
Spiritus nitri dulcis guttas viginti,
Tincturæ thebaicæ guttas ſex,
Salis rupellenſis ſcrupulum unum,
Syrupi violarum drachmam unam, miſce fiat hauſtus.

THE neutral draughts given in the act of effervescence are very cooling and agreeable.

FRESH fruit, all kinds of cool acidulated liquors, and cool air may be allowed the patient.

As to the lochia, though the quantity of the diſcharge is not always to be regarded,

regarded, the quality of it is a matter of the utmoſt importance; for if the matter be either acrid or putrid, it will be abſorbed, and be a conſtant fomes to the diſeaſe; but by frequent emollient, or antiſeptic injections, thrown up the vagina with a large ivory ſyringe, or by an elaſtic vegetable bottle, I have known the fevers of lying-in women much aſſuaged, or totally extinguiſhed. This is a practice which is not in general ſo much attended to as it ought to be, but it cannot be too ſtrongly inculcated, as I am confident I have ſeen many lives ſaved by its uſe.

When the violence of the pain abates, and the ſwelling and tenſion of the groin, labium pudendi, and upper part of the thigh, begin to leſſen, but a quick pulſe, and ſome degree of fever remain, we may ſay that it has arrived at its ſecond ſtage, and the patient may then be allowed wine, and a fuller

a fuller diet. I have generally found a dofe or two of calomel, of two grains each, given at proper intervals, very ufeful. Dr. Samuel Foart Simmons, in his *Practical Obfervations on the Treatmen of Confumptions*, from the authority of Dr. Saunders, recommends myrrh in the hectic fever of lying-in women, which arifes from debility. I have frequently given it to advantage both in this fever, and in the diforder which is the fubject of this inquiry, before the patient is in a condition to bear the bark. I firft give it in the quantity of fifteen grains three or four times a day, in a neutral draught in the act effervefcence; but after the patient has taken it a few days, in order to make it more tonic, I generally add a little fteel to it, and give it in the form recommended by Dr. Griffith, in his *Practical Obfervations on the Cure of Hectic and Slow Fevers.*

R. Myrrhæ

R. Myrrhæ ſcrupulos duos cum ſemiſſe, ſolve terendo in mortario cum

Aquæ menthæ vulgaris ſimplicis,

—— puræ, ſingularum unciis duabus,

—— cinnamomi ſpirituoſæ unciâ dimidiâ; dein adde,

Salis abſinthii grana viginti quatuor,

—— martis grana decem,

Syrupi ſimplicis drachmam unam: miſce, fiant hauſtus numero quatuor, quorum capiat ægrota unum ſextâ quaque horâ.

The limb may be chafed with warm oil; and in this ſtage of the diſorder, bathing in the Buxton bath, or water heated to 82 degrees of Fahrenheit's ſcale, has been found very uſeful; and after the patient has been a little accuſtomed to this degree of heat, it may be lowered to 76 degrees, the heat of the Matlock bath.

When the pain and fever have entirely left the patient, and no complaint remains,

remains, except the ſwelling of the limb, and perhaps a general relaxation, it may be called the third and laſt ſtage. The bark, with or without ſteel, together with ſea bathing, will then be neceſſary. If the time of the year, or the circumſtances of the patient, make this kind of bathing inconvenient; bathing in a cold bath, or in a tub in her own houſe, may be ſubſtituted in its room. Dipping the limb in cold water, and embrocating it with camphorated ſpirits of wine, or with diſtilled vinegar, will aſſiſt in bracing it. A circular calico bandage applied to the limb, by ſome perſon well accuſtomed to thoſe applications, will be found uſeful; and when the ſwelling is confined to the ſmall of the leg, the bandage may be changed for a ſtrait or laced ſtocking, or for a half boot. Exerciſe on horſeback, and gentle rubbing of the limb, and ſtroaking it upwards, to facilitate the return of the lymph, will be of

advantage;

advantage; but walking, or doing any thing that can promote a greater ſecretion of lymph, never fails to do manifeſt injury, in every ſtage of this diſeaſe, by increaſing the ſwelling, and bringing on many of the complaints; and this will happen till the lymph has got as free a paſſage as uſual, and the patient has recovered her full ſtrength.

AN

EXAMINATION INTO THE PROPRIETY OF

DRAWING THE BREASTS,

OF THOSE WHO DO,

AND ALSO OF

THOSE WHO DO NOT GIVE SUCK.

MR. CRUTTWELL, of Bath, publiſhed a pamphlet in the year 1779, entitled *Advice to Lying-in Women on the Cuſtom of drawing the Breaſts*; in his Preface to which, he has differed in opinion from me in ſome things which I had formerly advanced, but has expreſſed himſelf in terms far above what I am conſcious of meriting. He ſays, "I am well "aware that the cuſtom of employing "other means than the child, to draw "the breaſts after delivery, is recom-

mended

" mended and encouraged by men of
" eminence and abilities far ſuperior to
" my own; and the very reſpectable
" names of BUCHAN and WHITE ap-
" pear as advocates in its behalf. Theſe
" are gentlemen for whom I entertain
" the higheſt reſpect; but I have ſeen
" or, at leaſt, think I have ſeen, ſo
" much miſchief from its uſe, that
" I could not ſubſcribe my conſent to
" their opinion. I have attacked a
" practice which I thought wrong,
" and I plead my own experience as
" an advocate in my behalf. I always
" conſidered drawing the breaſts to be
" unnatural, indelicate, painful, and
" dangerous;—unnatural, as applying
" a different agent than what nature
" deſigned;—indelicate, as a diſeaſe
" might be thus conveyed of an alarm-
" ing nature;—painful, as ſenſible to
" the patient;—and dangerous in its
" conſequences. And the omiſſion I
" have ever hitherto found to be ſafe,
" natural, and eaſy."

If Mr. Cruttwell had confined his remarks to thofe women who do not fuckle their children, I fhould cheerfully have fubfcribed to his opinion. I muft acknowledge, that at the time I wrote my *Treatife on the Management of Pregnant and Lying-in Women*, in 1772, I had a different idea, and even believed in the doctrine of depofitions or tranflations of the milk; but further obfervation and experience have convinced me of my error; and I am not afhamed to recall what I faid on that fubject.

I believe there is not a man of eminence in the profeffion in the ifland at this time, who advifes thofe women to have their breafts drawn, who do not propofe to give fuck to their children. None of the lecturers in midwifery, either in London or Edinburgh, as far as I can learn, recommend fuch a practice. Dr. Hunter, in his

his lectures on the gravid uterus, &c. for many years expreſſed himſelf to the following purport. "If the patient "is not to ſuckle her child, many "things are recommended to be ap-"plied to the breaſts. In Ireland they "have them drawn, ſuppoſing, that if "the milk is locked up, it will pro-"duce fever. Here they have not "that idea. Some wiſh for the child to "ſuck the firſt month, but in general "we do nothing beſides putting a piece "of flannel, or rabbit's ſkin, upon the "mammæ, and if the patient cannot "bear that, quilted cambrick on the "inſide. I always prefer leaving the "breaſts to nature, and letting the "milk come into them, and either run "out, or be carried back into the "conſtitution, to be afterwards diſ-"charged by ſtool, urine, &c. I do "not like to bathe them with vinegar "and brandy, though that will gene-"rally repel the milk. If the mammæ

"are tight and very painful, I rub "them with oil, which ſoftens them, "ſoothes the pain, and allows them "to ſtretch. Rubbing is apt to make "the milk flow. If violently painful, "they may be fomented with warm "milk, which relaxes and eaſes them. "In general, however, nothing is re- "quired but patience for a few hours, "and the caſe always ends well; and "I do not believe there is any riſque "from giving up the milk and leav- "ing it to nature. It is very natural, "I muſt allow, that a woman ſhould "ſuckle her own child; but many "women are ſo delicate and nervous, "that after teazing themſelves and "their child in endeavouring to do this, "they are obliged to give it up in a "few days, or a week; and I believe "this is not attended with the leaſt "danger. I reaſon from facts, for "there is hardly one of my patients "that ſuckles her child, and yet they

"recover

" recover much better, and are much " ſtronger after lying-in, than thoſe " who do. For the omniſcient Author " of nature, who has contrived every " thing in the moſt proper way, fore- " ſaw that children would ſometimes " be born dead, or die ſoon after birth; " and has therefore taken care, that " the life of the mother ſhould not " depend on that of the child, but " that the milk ſhould be carried off " without doing any harm."

I HAVE always been a zealous advocate for women's ſuckling their own children, where the conſtitution, and other circumſtances, will admit of it, as it is moſt conformable to nature; and though this cannot be effected without great care, attention, and ſome pain and confinement on the part of the mother, yet theſe may be rendered much leſs than is generally the caſe. It is not neceſſary that children ſhould

either be ſuckled or fed in the night, or oftener than four or five times in the twenty-four hours. Oftener than this is no more neceſſary to them, than to adults. Their food, even when it conſiſts of breaſt milk only, is as competent to their delicate ſtomachs and ſmall veſſels, as ſolid meat is to the adult. This will not perhaps be allowed me by every perſon, but it is a fact that is known to many; and I have frequently been an eye-witneſs to it, both in my own, and in other families. Some women grow fat and ſtrong, and never have their health ſo well, as when they give ſuck. To many tender delicate women, it has been of ſervice; and ſome who cannot bear to ſuckle for many months, will bear it for a month or two; and it is always of ſervice to the children to have the firſt milk, as it purges away the meconium more naturally than can be done by any foreign aid. But there are women who

cannot ſuckle their children even for the ſmalleſt ſpace of time; there are others to whom it is very inconvenient; ſome who will not be at the trouble; and others who have dead children. The point to be determined is, what is the beſt mode of treating theſe perſons, whether to have their breaſts drawn or not. I have given a fair trial to both methods: I have made my obſervations upon them, and have weighed them carefully: and though perhaps it may not be a matter of ſo much importance as to need being inſiſted upon by the practitioner, but that the patient may in ſome meaſure be left to her own choice, if ſhe has any predilection; yet were I to recommend, it ſhould be to leave the milk entirely to nature, and not to do any thing that will either invite or repel it. Whatever advantages might be reaped from ſuckling, I am convinced there can be none from inviting the milk into the breaſts, and then

then letting it go again immediately, which is always the caſe when the child does not ſuck. Thoſe women who are the moſt expert at drawing breaſts, cannot preſerve the milk long without the child: it ſoon grows ſaltiſh, and ill-taſted, and is abſorbed. In this ſtate it is very likely to produce the bad conſequences it was intended to prevent.

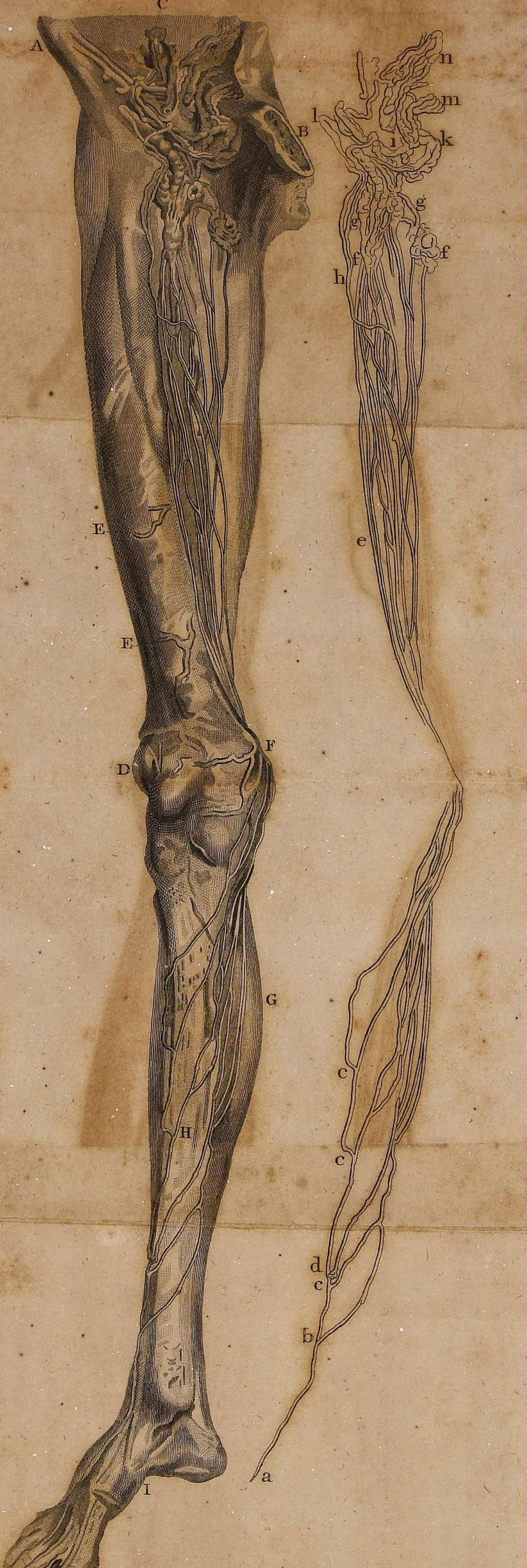
The milk can neither be brought into the breaſts, not ſuffered to go back, without creating ſome little diſturbance in the ſyſtem; which is in a great meaſure prevented by leaving it to nature, taking care to keep the inteſtinal canal open, and obſerving a cooling regimen and diet. Women recover faſter, and much trouble is ſaved by this means, and the breaſts are abſolutely prevented from gathering. I have proved beyond the poſſibility of doubt, that it does not occaſion the ſwelling of the lower

lower extremities; and I am equally convinced, that it does not occaſion either the puerperal or miliary fever, and that the milk fever is ſlighter, and of much ſhorter duration, than when the breaſts are drawn; nor do I ſee any inconveniences that can attend this mode of treatment, but what will attend the drawing of the breaſts, in as high a degree at leaſt.

If the patient ſuckles her child, the caſe is very different: the nipple may become chopped or ulcerated, and if the child continues to ſuck, it will inflame the breaſt, and even produce an abſceſs. If you keep the child from it, it is true that it will mend, and even get perfectly well; but this in general requires ſome time, and the milk will leave the breaſt, frequently never to be brought back. But if you have a perſon well accuſtomed to the drawing of breaſts, to extract the milk, it will give

no pain to the patient, and the milk will be kept much longer than without being drawn; though even with this advantage, it cannot be kept good above a fortnight or three weeks at the moſt. In ſome caſes the child is not able to draw out the nipple, and muſt therefore have ſome aſſiſtance. When the milk has been much heated by exerciſe, or by any feveriſh complaint, it is better to have the breaſts drawn, than to give the milk to the child.

Plate I.



Darton & Harvey sc. London.

Description of the Plates.

PLATE I.

exhibits the more ſuperficial Lymphatic Veſſels of the lower Extremity.

A The ſpine of the *os ilium*
B The *os pubis*
C The iliac artery
D The knee
E,E,F Branches of the crural artery
G The *muſculus gaſtrocnemius*
H The *tibia*
I The tendon of the *muſculus tibialis anticus.*

On the Out-lines.

a A lymphatic veſſel belonging to the top of the foot
b Its firſt diviſion into branches

c,c,c Other divifions of the fame lymphatic veffel

d A fmall lymphatic gland

e The lymphatic veffels which lie between the fkin and the mufcles of the thigh

f,f Two lymphatic glands at the upper part of the thigh below the groin

g,g Other glands

h A lymphatic veffel which paffes by the fide of thofe glands without communicating with them; and bending towards the infide of the groin at (i), opens into the lymphatic gland (k)

l,l Lymphatic glands in the groin, which are common to the lymphatic veffels of the genitals and thofe of the lower extremity

m,n A plexus of lymphatic veffels paffing on the infide of the iliac artery.

N. B.

N. B. The lymphatic veſſels appear in theſe plates more regularly cylindrical than they are repreſented by *Nuck, Ruyſch* and others, in whoſe plates ſuch veſſels are painted more like chains of veſicles than I have ever ſeen them.

PLATE II.

exhibits a back View of the lower Extremity, diſſected ſo as to ſhew the deeper ſeated Lymphatic Veſſels which accompany the Arteries.

N. B. This extremity was dried before the plate was made from it, and the muſcles are therefore much ſhrunk.

A The *os pubis*
B The tuberoſity of the *iſchium*
C That part of the *os ilium* which was articulated with the *os ſacrum*
D The extremity of the iliac artery appearing above the groin
E The knee
F,F The two cut ſurfaces of the *triceps* muſcle, which was divided to ſhew the lymphatic veſſels that paſs through its perforation along with the crural artery
G The edge of the *muſculus gracilis*

H The

Plate II.

Darton & Harvey sc. London.

H The *gaſtrocnemius* and *ſoleus*, much ſhrunk by being dried, and by the *ſoleus* being ſeparated from the *tibia* to expoſe the veſſels

I The heel

K The ſole of the foot

L The ſuperficial lymphatic veſſels paſſing over the knee, to get to the thigh

On the Out-lines.

M The poſterior tibial artery

a A lymphatic veſſel accompanying the poſterior tibial artery

b The ſame veſſel croſſing the artery

c A ſmall lymphatic gland, through which this deep-ſeated lymphatic veſſel paſſes

d The lymphatic veſſel paſſing under a ſmall part of the *ſoleus* which is left attached to the bone, the reſt being removed

e The

e The lymphatic veſſel croſſing the popliteal artery

f,g,h Lymphatic glands in the ham, through which the lymphatic veſſel paſſes

i The lymphatic veſſel paſſing with the crural artery through the perforation of the *triceps* muſcle

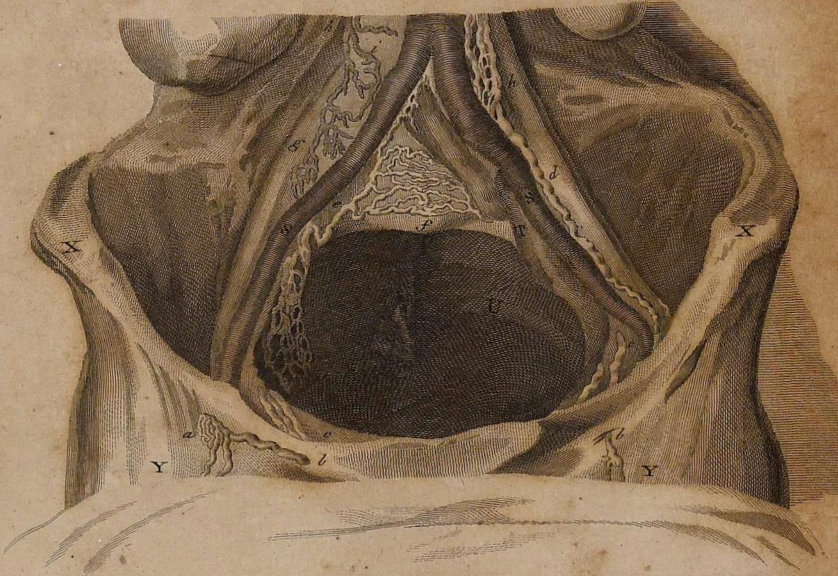
k The lymphatic veſſel, after it has paſſed the perforation of the *triceps*, dividing into branches which embrace the artery (l)

m A lymphatic gland belonging to the deep-ſeated lymphatic veſſel. At this place thoſe veſſels paſs to the fore part of the groin, where they communicate with the ſuperficial lymphatic veſſels

n A part of the ſuperficial lymphatic veſſels appearing on the brim of the *pelvis*.

PLATE

Plate III.



Darton & Harvey sc. London.

PLATE III.

exhibits the lower part of the Trunk of the Human Subject, prepared to ſhew the Lymphatic Veſſels and the Ductus Thoracius.

S,S The external iliac arteries

g,d The *muſculi pſoæ*

T The internal iliac artery

U The cavity of the *pelvis*

X,X The ſpine of the *os ilium*

Y,Y The groins

a A lymphatic gland in the groin, into which lymphatic veſſels from the lower extremity are ſeen to enter.

b,b The lymphatic veſſels of the lower extremities paſſing under Poupart's ligament.

c,c A *plexus* of the lymphatic veſſels lying on each ſide of the *pelvis*.

d The *pſoas* muſcle with lymphatic veſſels lying upon its inſide.

e A *plexus* of lymphatics, which hav-

ing paſſed over the brim of the *pelvis* at *(c)*, having entered the cavity of the *pelvis*, and received the lymphatic veſſels belonging to the *viſcera* contained in that cavity, next aſcends, and paſſes behind the iliac artery to *(g)*,

f Some lymphatic veſſels of the left ſide paſſing over the upper part of the *os ſacrum*, to meet thoſe of the right ſide.

g The right *pſoas* with a large *plexus* of lymphatics lying on its inſide.

h,*h* The *plexus* lying on each ſide of the ſpine.

i, Spaces occupied by the lymphatic glands.

THE END.

AN

INQUIRY, &c.

AN

INQUIRY

INTO THE NATURE AND CAUSE OF THAT

SWELLING,

IN ONE OR BOTH OF THE

LOWER EXTREMITIES,

WHICH SOMETIMES HAPPENS TO

LYING-IN WOMEN.

PART II.

BY CHARLES WHITE, ESQ. F. R. S.

Member of the Royal College of Surgeons in London; Vice-President of the Literary and Philosophical Society, and Man-midwife Extraordinary to the Lying-in Hospital of Manchester, &c.

MANCHESTER:

PRINTED BY W. SHELMERDINE AND CO.

FOR J. MAWMAN,

Successor to C. Dilly in the Poultry, London.

1801.

TO

THOMAS PERCIVAL, M. D.

F. R. S. and A. S. London,

PRESIDENT OF THE LITERARY AND

PHILOSOPHICAL SOCIETY,

AND PHYSICIAN EXTRAORDINARY

TO THE INFIRMARY IN MANCHESTER,
&c.

These Sheets are inscribed

BY

his sincere Friend,

and much obliged

humble Servant,

THE AUTHOR.

PREFACE.

Had it not been for the following reasons, the author would not again have addressed the public, upon the subject of *Depot laiteux a la cuisse*, as it is called by some, by others *Œdema lacteum*, or white leg, and which he will distinguish, by the appellation, of *Phlegmatia alba dolens Puerperarum*.

1st. Because, the disorder has been confounded with others even by men of science.

2dly. New facts have occurred for the further elucidation of the subject, and

3dly. His description of the nature and cause of the disease has been controverted, and other theories advanced in its place.

His

His Inquiry was first published in 1784. Before that time, nothing had been professedly written on the subject, except by foreigners. The complaint had not indeed wholly escaped his countryman, Sydenham[1]; for though he ranked it in a different class of diseases, viz. Hysterical, yet under that head, he has described it, with other diseases of child bed women.

In 1792 Mr. Trye published *An Essay on the swelling of the lower extremities*

[1] In quo genere is, qui Tibias distendit, Tumor præ reliquis conspicuus est. Cum enim in Hydropicorum tumoribus duo hæc semper observari possint, ut Tumor scil. sub vesperam se majorem exhibeat, tum etiam ut pastæ instar madentis vestigium digiti fortius impressi, formamque referat; jam in hoc altero, tumor matutino tempore protuberantior est, nec digito cedit prementis, aut vestigium ullum manet. Plerumque etiam tibiarum alterutram tantum inflat: de cætero sive magnitudinem spectes, sive etiam superficiem Hydropicorum tumores ita ad amussim æmulatur, ut ægre se haud facile ab ea, quæ insedit sententia dimoveri patiantur.

Diss. Epist. ad G. Cole, p. 490.

tremities incident to Lying-in Women. He has differed from the Author in several points, but he has done it in so gentlemanlike a manner, as to merit the author's warmest acknowledgments, and if there be some points in which the author differs from him, no doubt he will forgive the liberty he takes in noticing them. Mr. Trye is a practical or working anatomist, having been the assistant of Mr. Sheldon, Professor of anatomy in the Royal Academy of Arts. He received the first rudiments of midwifery under Dr. Denman, and is now, and was at the time of writing that Essay, surgeon to the Gloucester Infirmary.

In 1798 Dr. Ferriar published his third volume of Medical Histories and Reflections, wherein is contained an article, entitled, "*An Affection of the lymphatic Vessels hitherto misunderstood.*" Though this Gentleman is no practitioner in midwifery, he has been Physician to the

Manchster Infirmary, Dispensary, Lunatic Hospital, and Asylum upwards of ten years. He is a man of polite literature, and of considerable experience in his profession.

In 1800 Dr. Hull published *An Essay on the Phlegmatia dolens.* The doctor has a considerable knowledge and extensive practice, in every branch of the healing art. And the works which have come from his pen, sufficiently testify his abilities.

These circumstances render it necessary that the author should state to the public, what he has to enable him to de fend his own doctrines against combatants, possessed of such abilities and such advantages, who are certain to detect him, if he have not truth on his side.

Although it is an unpleasant thing for a man to speak of himself, it may be necessary

necessary to those of his readers, who live at a distance, to say that he is at this time and has been for more than half a century, in full practice in midwifery, among women of every rank or condition of life. He had in the early part of his practice, the care for many years, of all the parish poor in the populous town of Manchester, and in a very considerable circuit of its environs. This was at a time, when there were few men-midwives, scarcely one in fifty in proportion to the present number; that branch of the profession being then principally in the hands of women. The men were only called upon in cases of emergency. For the last ten years the author has been *Man-midwife extraordinary to the Manchester Lying-in Hospital and Charity for delivering poor married women at their own habitations,* during which time, there have been delivered under that institution 8000 women. Previous to that time, he was surgeon to the

Manchester

Manchester Infirmary 38 years. He thinks therefore he may safely say, though there may be many men who have attended more women in natural labours, yet there are none, now living, who have attended so many difficult cases of parturition, and of diseases in consequence of it.

The author is in possession of a museum, furnished with every useful preparation, both wet and dry, which are necessary for giving anatomical lectures; where public courses were delivered in 1787 and 1788, by his late son Dr. White, and they have been repeated these two last years, by his worthy and ingenious friend, Mr. Gibson. He has the satisfaction, and, he may say, the advantage of being upon the best terms, with most of the faculty in the town of Manchester, and its neighbourhood. The reader will therefore see that he has not been wanting in opportunities for observation.

Although he had seen many other cases of *Phlegmatia alba dolens Puerperarum*, those which he related in his former INQUIRY, were such only as occurred in the years 1781, 1782, and 1783, when he began to entertain thoughts of writing upon the subject.

This disorder perhaps occurs less frequently than has been generally imagined.

In the 71st vol. of the Philosophical Transactions, part 2d. art. 22. Dr. Bland says, " Of 1897 women delivered at the " Westminster General Dispensary, five " had large and painful swellings of the " legs and thighs, but recovered." This is nearly one in 389, supposing him in all these instances to have referred to the disorder in question, but as this is all he says upon the subject, it is impossible to determine this point. From some facts which

which the author will lay before the reader, and from his own observations, he is inclined to think it does not so frequently occur as one in 380. Out of 8000 women delivered at the Manchester Lying-in Hospital, and at their own habitations, only four had the *Phlegmatia alba dolens Puerperarum*, or only one in 2000. The author is acquainted with several men-midwives, who have been in long and extensive practice, and who have never seen the Phlegmatia alba dolens Puerperarum: and to this may be added, that few persons who do not practise midwifery, have an opportunity of seeing this disease at its commencement. Foreigners have generally attributed this complaint, as well as many others, in the pregnant and puerperal state, to a *depot de lait*, but this idea is now pretty well exploded in this island.

But Englishmen have fallen into other errors, and have confounded it with

with Anasarca, Phlegmon, Inflammation of the Absorbents, Abscess, Mortification, Peritonitis, and Rheumatism.

Manchester, May 25th, 1801.

Directions to the Binder.

Plate First, after Page.................... 100
—— Second and Third, after Page... 102
—— Fourth, after Page................. 104

AN

INQUIRY, &c.

CHILD bearing Women are liable to many diseases, both in the pregnant and puerperal state, owing to the distention of the impregnated uterus, in the early months, and to its weight and size in the latter months, pressing against, and displacing many of the surrounding parts; to the violence of the labor pains; to the means made use of to assist delivery; to the absorption of putrid lochia; to the accession of milk in the breasts; and to the alteration the system undergoes, in both these states, bringing on diseases, which affect the arteries, veins,

nerves, lymphatics, ligaments, cartilages, cellular membrane, muscles, tendons, urethra, bladder, rectum, and most of the viscera, occasioning sickness, vomiting, constipation, spasms, fever, floodings, varices, compression, and bursting of the vessels, prolapsus, inversion, and retroversion of the uterus, lacerations of the uterus, vagina, bladder, and perineum, suppressio and stilicidium urinæ, openings, betwixt the vagina and the bladder and betwixt the vagina and the urethra, herniæ, inflammation, abcess, metastasis or translation of matter, gangrene, separation of the bones, ascites and *anasarca gravidarum & puerperarum*, palsy, puerperal insanity, *peritonitis and phlegmatia alba dolens puerperarum*. We ought not however to confound these disorders, with each other, but keep them as distinct as possible. In order to acquire a perfect knowledge, and wholly to develope the nature, cause and seat of a disease, we should

should view it, when it is complete, in its simple uncomplicated state. It is no doubt useful to report complicated cases, but they are not calculated to teach us, the true character of a disease, which has not been perfectly understood, sufficiently ascertained, generally acknowledged, nor accurately described. To take the character of a disease, when complicated with others, would lead us into perpetual errors, as we should be constantly mistaking one disorder for another. We should likewise view it in every stage; in its rise, its progress, at its acmè, upon its decline, and its final termination; we should examine whether, and how often, it proves fatal, whether a perfect cure is ever, or always, obtained, and whether it happens at any certain period; whether there is ever any metastasis, and whether it ever changes its type, &c. We should not form our opinions, upon one or two cases, but we should view it in different

constitutions,

constitutions, in different ages, in different seasons. We should view it in those who are in the highest health, before the commencement of the disorder in question, and in those who are debilitated, by other diseases, or by evacuations.

Since I wrote my former Inquiry, this disorder has been well described by a Foreigner. As I have not seen the original, I will take the liberty of transcribing the description of the disease from Dr. Hull's Essay on *Phlegmatia dolens*, p. 57 together with the Doctor's introduction to it.

"In the celebr. Callisen's *principia systematis chirurgiæ hodiernæ* published at Copenhagen in 1788—1790, "this affection of the lower extremities "is named *Oedema Puerperarum*, and is "so admirably, and at the same time so "concisely treated of, that I with plea-

" sure lay before the reader the whole
" of his account of it, as given in part
" second pages 18—20 § 34 30.

" 34. Oedema puerperarum, aliis
" lacteum *est* tumor elasticus, albescens,
" renitens, calidus, dolens, foveam im-
" pressi digiti haud retinens, puerperis
" haud infrequenter, gravidis rarissime
" infestus.

" 35 *Sedem* huic oedemati præbent
" extremitates inferiores, una vel utra-
" que; dextram sinistra sæpius invadit
" morbus; rarissime extremitates supe-
riores petit.

" 36. *Surgit* plerumque duodecimo
" vel decimo quarto post partum die
" tensio & dolor inguinis, sequitur tu-
" mor, qui sensim ad labia vulvæ &
" latus femoris internum, deinde per
" totum femur extenditur: secundo vel
" tertio die crus similia patitur; denique
" dolor,

"dolor, tensio ac sequens tumor in
"pedem transeunt, sub febri satis gravi.
"Eodem ordine morbus plerumque intra
"duas et octo hebdomades decrescere
"solet; interdum per longius tempus
"excurrit. Ab oedemate hydropico
"frigido facile distinguitur hic morbus
"eo, quod a partibus superioribus deor-
"sum pergat, tumor caleat, doleat, nec
"foveam impressam retineat.

"37. Morbum inducentes *causæ*
"sæpe quidem esse videntur impedita a
"qualicumque causa lactis de sanguine
"secretio (I. 670), aut morbosa ejus re-
"sorptio (I. 674), seu lochiorum impe-
"ditus fluxus; *haud raro tamen nec lac,*
"*nec lochia, nec indoles laborum partus*
"*in causa esse videntur, sed sola lymphæ*
"*haud attenuatæ retentio ac resorptio im-*
"*pedita, a labe systematis resorbentis &*
"*glandularum lymphaticarum; quare*
"*per loca cutis scarificata nullum liqui-*
"*dum effluere solet.*"

The

The PATHOGNOMONIC SYMPTOM of this disease is a swelling of the whole *labium pudendi*, on the same side *only*, on which there is, a firm, glossy, warm, tense, elastic, painful, sudden swelling, of a pale white color, which attacks the hypogastric region, the loins, nates, groin, thigh, leg and foot of a lying-in woman; and I must beg leave to impress this, upon my readers, that when one limb only is affected, the swelling is confined so exactly, to the *labium pudendi* of that side, that if a line were drawn from the navel to the *anus* it would be found never to go beyond that line, in the smallest degree; and I must observe that this pathognomonic symptom of the swelling of the corresponding labium pudendi *only* is never wanting, in any case whatever. About nine times out of ten, it attacks one side only, and the limits are so exactly drawn that in no case whatsoever does the swelling rise higher than the loins and hypogas-

tric,

tric region, nor spread wider than the spine and the linea alba. And this is so constantly and invariably the case, that it may confidently be said SO FAR SHALT THOU GO AND NO FARTHER.

After carefully reviewing the cases, which have fallen under my own inspection,—those of my friends and correspondents, and those upon record, I am well satisfied, that there is not one, of the genuine disease, in its simple uncomplicated state, sufficiently authenticated, that ever proved fatal—not one that was ever attended with any external inflammation, abscess, gangrene, or bursting of the skin, in the legs, or thighs, as in anasarca. That though the pain sometimes *begins* in the ham, or the calf of the leg, yet the swelling never *begins* so low. Mistakes have arisen on this head from the patient not thoroughly understanding the question, whether it was

the pain, or the swelling, which began there. Though it sometimes attacks women in both the lower extremities, in the same, or in different lyings-in, yet it never attacks the same side more than once, and it never attacks women after a miscarriage in the early months of pregnancy.[1] There are no red or purple streaks running up the limb, no inflammation on the skin, nor any visible inflammation whatever. The skin not only loses its natural colour, and puts on the appearance of a milky whiteness, but all the blue veins disappear, even the varicose ones if they had been such, before the disease began; and there is less appearance of blood in the limb than in a natural state. There is no sensation of itching, nor throbbing in the part; the pulse,

[1] Though I have received information of this disorder happening to the same limb, more than once, and to its happening after miscarriages in the early months of pregnancy, yet upon strict inquiry I never found it verified.

pulse, though frequent, is neither full, hard, nor strong; no absolute, nor relative plethora in the part, and frequently none in the system generally. The limb is not lessened by an horizontal position, the impression of the finger is not left upon it, nor does it issue any fluid, if punctured with a lancet, when the disorder is at its acmè, and seldom when it is upon the decline.

The great pain in the loins, and in the Hypogastric region, afterwards in the conglobate glands, in the groin, ham, and the middle of the leg, and lastly in the whole lower extremity, appear, to be solely in consequence of sudden distension. There can be no metastasis or translation of matter, from one limb to the other, for though I have never known the disorder commence *exactly at the same instant, in both the lower extremities*, I have known it complete in both at the same time.

I have never known it change its type, to any other disorder, nor have I known, any other disorder terminate in this; but I do not mean to say, that other disorders may not precede, accompany or succeed it; for I am satisfied that it will not prevent any other disease.

I have carefully perused the cases published by Mr. Trye, Dr. Ferriar, and Dr. Hull. I have seen many similar to them all, and no doubt they convey much useful information, but many of them do not relate to the disease in question, they want many of the principal symptoms described by Pusos, Leveret, Callison, Hull, &c. as well as of those by myself; some of them have symptoms, which do not accompany the disorder, and there are others, so complicated with various complaints, that it is difficult to form an opinion of them.

Mr. Trye seems to be aware of this circumstance. [2]

Mr. Trye has related 15 cases, 11 of

[2] He says, "(1) the disease, of which he (Mr. White) "has treated, is so far as I can judge, the same as that "which I am about to consider: though on the one hand, "I have not met with all the appearance which he de-"scribes, and on the other, some on which he is silent, "have fallen in my way."

"(2.) Mr. White's extensive practice has enabled "him to form a general history of the complaint, and to "that history I beg leave to refer my reader, because it "is much more full than that which I can give from my "own experience; although as I have already mention-"ed, I have observed some circumstances either not "seen or not noticed by the very respectable author of "the inquiry." Again he adds, "† Upon re-perusing "Mr. White, I observe, he says, that suppuration ne-"ver happens. His authority creates a doubt in my "mind, whether or not I am mistaken in considering a "glandular suppuration coming on after delivery as a "part of, or connected with the disease in question. "But I have neglected to observe whether or not it "commonly affects the *labium pudendi*. ‡

* Essay on the swelling of the lower extremities, page 2.

† Page 75.

‡ Page 9, here he has neglected to observe the principal pathognomonic symptom.

of which have fallen under his own care, and four under the care of Mr. Taylor of Uooten-Underedge, but it does not appear to me clear that any of them are *phlegmatia alba dolens puerperarum* except the fifteenth, or last given by Mr. Taylor.

The 12th case given by the same gentleman, being very short, I will take the liberty of copying it, as it has been quoted, to shew that suppuration sometimes takes place in the limb in this disorder.

" In the Summer of the year 1784, " I attended a middle aged woman, " who had a very extensive suppuration " of the leg, from the ham to the heel, " subsequent to, and in consequence of " an œdematous swelling of the extre- " mity after lying-in." This case carries so little the marks of the disorder in question, that it requires no comment.

The

The 13th is the case of Mrs. R. who it is said, had the disorder twice in the same limb, at different lyings-in. The first time she is said to have had it, 1787, it was so trifling, and wants so much the characteristic symptoms of this disease, that I apprehend no body will venture to say it was the disorder in question. The second time she is said to have had the disorder, was 1791; but here likewise many of the characteristic symptoms are wanting. I shall only observe upon these two cases, that if either of them were the *phlegmatia alba dolens puerperarum*, they were cured in a very short time, without either bleeding or blistering. Many other of Mr. Trye's cases were those of inflammations and abcesses.

Mr. T. in his appendix, page 70 says "I have considered the proximate cause "of the swelling to be seated in the lym-"phatic glands. I will not contend that "it must be so universally; because there is

"is a probability that the original seat of "obstruction and inflammation may in "some instances be in the principal "trunks of the absorbents within the pel- "vis, independant of, and abstracted "from the iliac glands, in which case "the inflammation may be continued "along the absorbent vessels downwards, "that is towards the labium pudendi, "leg, &c. as well as upwards towards "the thoracic duct."

In his preface he says, "I can easily "conceive, as I have mentioned in the "appendix, that the obstruction to the "return of the lymph, may commence "in the primary inflammation of a trunk "or trunks, and probably this may be "the case more frequently than I have "hitherto discovered or suspected it to "be."

So that Mr. Trye does not seem to have formed a definite opinion, whe-

ther

ther the proximate cause of the swelling be seated in the lymphatic glands, or in the trunks of the absorbents, or at least where it commences.

Mr. Trye allows that this disease is in consequence of parturition, by which an inflammation of a lymphatic gland may be brought on by three accidents; namely, pressure; the application of acrid matter; or by inflammation continued from an absorbent. The objection to the theory of inflammation being brought on by pressure, as I have observed in page 4 of my former Inquiry, is, that the disorder, most[3] frequently does not appear till several weeks after delivery, whereas one would have expected it always to have appeared in a few

[3] I have in that Inquiry inadvertently made use of the word *most* instead of *very*.—If I had said *very frequently* I should have been perfectly correct. Dr. Ferriar in his animadversions on this passage says, "I "cannot avoid noticing that the possibility of account-

in a few days, which seldom happens.

DR. FERRIAR has given us several

"counting for this disease, from inflammation of the "absorbents, had occurred to Mr. White and he has "rejected the supposition upon grounds inconsistent "with his own statement of the symptoms." After taking a good deal of pains and bestowing above two pages upon it, he concludes by saying that "the asser- "tion at p. 47, does not appear conformable to the facts, "from which it must be supposed to have been de- "duced." He says, "that in 9 cases out of 14 which "Mr. White has stated the latest period was 16 days." In this case it was totally immaterial whether there were 9 or 5 out of 14. I do not rest my argument upon the supe- rior or inferior number of cases, which occur at a late period of delivery, but I maintain that women are some- times attacked with it several weeks after, and one or two such cases will be perfectly sufficient to do away the theory of inflammation being brought on by pressure. In works of taste or fancy, or in controversies, when the author is writing chiefly for fame or amusement, these kind of criticisms, are very allowable, but in recording medical facts, they may lead to important errors. There was no danger to be apprehended from my expressions as the facts were fully stated, in the cases which I had related, and to which I must refer my reader. Though I am decidedly of opinion, that the *phlegmatia alba*

cases, but they are none of them cases of the *phlegmatia alba dolens puerperarum,* except

dolens puerperarum, can never be occasioned by pressure, yet I can easily conceive, that a temporary complaint, similar to it, may be brought on, in the early months of pregnancy (viz. about the third or fourth) by the impregnated uterus, pressing the lymphatics, against one side of the pelvis, before the uterus has risen above the projection of the sacrum, and may cause a total, or partial, stoppage of the lymph, from the lower extremity but when the uterus rises high enough, to be supported by the spine, or a miscarriage happens, then the swelling will subside, and if from the latter cause, it will subside suddenly. I apprehend that cases of this sort, do not happen very frequently, as I have met with only one, which is inserted in the 10th vol. of the Medical Commentaries, page 302, which I will take the liberty of copying.

" *The History of an uncommon Swelling of the lower Ex-*
" *tremities in a pregnant Woman, terminating favour-*
" *ably immediately after an Abortion, By* Dr. Evans,
" *Physitian at Liverpool.*

" A Lady of a delicate constitution, being about
" three months advanced in her pregnancy, was (on
" the 19th of June, 1783) suddenly alarmed by an ute-
" rine hæmorrhage. The next day the discharge conti-

except that of Jane Waters, whom the Doctor did not see, till her disorder had arrived at its acmè, and there is reason to
conclude

" nued, in small quantity, attended with a slight pain
" in the loins. It was thought advisable she should let
" blood. Accordingly about ten ounces were taken
" from the arm. She also took a draught composed of
" the decoction of the red Peruvian bark, with vitriolic
" acid, every four hours: and, at bed time, an anodyne.
" This mode of treatment, was pursued for ten days
" without alteration, excepting the addition of a bolus
" of nitre and camphire to each draught.

" On the 30th she began to complain of her legs and
" feet being remarkably cold, and of a chilness over the
" whole body. The following morning, she had a pain
" in the left groin, a swelling of the labium pudendi of
" the same side, which extended around to the back,
" accompanied with a dysuria, a pain and swelling
" down the inside of the thigh, and the back part of
" the leg, with such a degree of stiffness as to pre-
" vent the extension of the limb, without great un-
" easiness. The leg was kept in the most favourable
" position for several days, and well rubbed with cam-
" phorated spirits.

" On the 19th of July, the swelling of the whole
" limb was increased, and had an œdematous appear-
" ance, but was harder to the touch than in a common
" anasarca. A blister was then applied to the upper
" and back part of the leg, which, in some degree, re-

conclude that he did not see her towards its termination, when an abscess formed, as

" moved the stiffness and pain. In this state every thing " remained for the space of a week, when sea-bathing " was tried, and continued for a fortnight. In three " days after the commencement of the bathing, a con- " siderable increase of the swelling of the whole limb " was observed, which came on every morning as soon " as the patient was out of bed, but it was attended " with less pain and hardness than before.

" On the 27, (in the afternoon), the swelling sud- " denly disappeared; and the next morning severe " pains in the back and abdomen took place, with a " bearing down resembling labour. These complaints " continued for the space of two hours, at the end of " which period she was relieved by a large uterine " discharge, which, upon examination, proved to be a " miscarriage. Every symptom of disease now disap- " peared, and nothing remained but a small degree " of swelling towards night, which gradually dimi- " nished as she gained strength."

There is another disorder which happens to women, in the early months of pregnancy, before the uterus rises above the projection of the sacrum, and goes away also, in the same manner, when the uterus rises high enough, to be supported by the spine, or as soon as a miscarriage happens. This disorder is that suppression of urine, which is occasioned by the uterus pressing a-

as he makes no mention of it. And one from Professor Zinn, transcribed from the medical Museum. Dr. Ferriar says, p. 115 "a case of this disease is related by Zinn, which deserves to be noticed, because it had a "*fatal* termination." Being possessed of the transactions of the Gottingen Society, where this case was originally inserted, I shall be able to shew that this is a mistake, owing to an omission in the translation. But I shall take further notice of these two cases in a future part of this work.

The first case which Dr. Ferriar has favoured

gainst the neck of the bladder, and in capacious pelvisses, occasioning a retroversion of the uterus.

The case related by Dr. Evans is a complete refutation of the doctrine of inflammation of any kind being the cause of this complaint, as the lady was of a delicate constitution, and had not one inflammatory symptom, but had an uterine hæmorrhage, and had ten ounces of blood taken from her arm.

favoured us with, of a gentleman of an irritable habit, and upon which he has founded his theory, might be the disorder to which the Doctor gives the appellation of lymphatic rheumatism, but it bears no analogy to the disease in question. In page 95, Dr. Ferriar says, "But practitioners do not seem to be "aware, that all the lymphatics of a "large limb may take on a disposition "to inflammation, from internal causes." Why then is its situation in all cases so precisely limited? In page 98 the Doctor says, That there is a "general "inflammatory state of the absorbents "of the limb," Why then does it not visibly shew itself particularly before the commencement of the swelling? and in page 100 that "the absorbents were "rendered incapable of performing their "functions, by the thickening of the "vessels, and the obstruction of the "glands; but the arteries being in a "sound state, the exhalents continued

"to

" to pour out their fluid; which not be-
" ing absorbed, must stagnate in the
" cellular membrane." Why then does not the limb pit when pressed, and subside, when in an horizontal position, at its commencement, rather than near to its termination? In page 103 he says, " I see no reason for supposing, that this
" affection is necessarily confined to the
" extremities, particularly in the lower
" limbs." If this disorder were a general inflammatory state of the absorbents of the limb and from an internal cause I should have agreed with the Doctor that there was no ιeason for supposing that this affection is necessarily confined to the extremities and particularly to the lower extremities, but since this is not the case, little will be required to prove the doctrine an erronéous one.

Whenever a conglobate gland of a limb is affected with inflammation to any degree, it always shews itself through the

the skin by the redness of the colour, and from whatever cause it proceeds, it frequently suppurates,[4] either in the groin, the thigh, the ham, or the middle of the leg, whether it be from scrophula, syphilis, plague, &c. but in this disorder it never suppurates in those parts. An inflammation in the coats of the lymphatic vessels, either the cutaneous, or their superficial trunks always shews itself externally,[5] by a red or purple streak running

[4] The wound of an absorbent vessel in the finger or toe is sometimes succeeded by the suppuration of an absorbent gland in the groin or the axilla.

Pearson's Principles of Surgery, p. 43.

"[5] Mr. Hunter saw a case in which the skin being "pricked by a needle, which never had been used before, or touched any infectious or irritating substance "occasioned the lymphatics of the arm to inflame, and "shew themselves in the form of red lines, running "towards the axilla. In consequence of this, some one "of the glands were also inflamed and swelled; the "patient had rigors and sickness; and all this in the "space of a few minutes. I have also seen similar cases."

Cruikshank's Anatomy of the absorbing Vessels, p. 76.

running along their course, and this inflammation is communicated, for a small space, to the cellular membrane in which they are imbedded; whether it arises from poisons, caustic, or gangrene, external injury or any cause whatever, it is visible to the naked eye. I believe there is not a surgeon in any practice in the kingdom, who has not seen both lymphatic

Speaking of the glands of the ham, he says, "Dr. "Hunter mentioned a case of a patient who was bit by "a mad dog in the calf of the leg: the sore healed at "first, but some weeks after broke out again: red lines "were perceived running upwards from the sore, with "the saphena minor, which dipt down in the ham and "were lost. They were inflamed lymphatics going to "their glands."

ibid p. 133.

Lymphatics inflame when they absorb poisons, such as the venereal virus, cancerous matter, or the poison of a mad dog. Wounds received both by myself and others in dissecting dead bodies have given me many opportunities of seeing these vessels inflamed from an irritating matter they had absorbed from such a wound.

Cruikshanks' Anatomy of the absorbent vessels, p. 27.

tic glands and vessels inflamed, and yet I will venture to say that none of them ever saw the disorder in question, occasioned by, or even attended with, any such symptoms.

In September last, as I was inoculating a child for the cow pox, I punctured my left thumb with a lancet, armed with vaccine matter. It gave me the infection, which went through its regular stages. On the eighth day it began to inflame, and encreased for several days; and on the 12th purple streaks appeared, running up from the thumb to the axilla, depicting the inflamed lymphatics, in the most accurate manner, and in very strong lines, which is accounted for, by Mr. Abernethy.[6] I now lament very much

[6] "There is another circumstance, which deserves attention; when the absorbents become inflamed they "quickly communicate this disease to the cellular sub-

much, that I had not a drawing made from them, as it would have been a very perfect one of those vessels. When I was in this situation, I was called to visit a patient in Rutlandshire, and though I travelled post 120 miles, the pain or uneasiness was so very trifling, that I suffered no inconvenience from it, nor did it produce the least œdema.

The absorbents are more numerous than any other series of vessels, and they have more valves than either the arteries, or veins. They are not only liable to accidents, but to as many different disorders, as any other vessels, or organized parts,

"stance by which they are surrounded. Most surge-
"ons have remarked, these vessels, when indurated,
"to appear like small chords, perhaps of an eighth of an
"inch in diameter: this substance is surely not the
"slender sides of the vessel, thus suddenly augmented
"in bulk but an induration of the surrounding cellular
"substance to which the irritated vessels have commu-
"nicated inflammation, page 179."

Surgical and Philosophical Essays, Part 2d.

parts. The coats of the lymphatic vessels, may be too thick, or too thin; either generally, or partially. They may be of too tense, or too lax a fibre; they may be compressed, they may be cut or lacerated, or they may burst by their contractile power. They are liable to spasm, pain, inflammation, slough, and gangrene. Acrid matter may generate in, or fix itself upon, the glands; or it may be absorbed by the lymphatic vessels, and by that means conveyed to the glands; but the disease in question cannot be owing to any degree of acrimony, as it happens to those who have never shewn any signs of it. The lymphatic glands are subject to syphillis, scrophula, schirrus, and cancer, and to be affected by different kinds of poison. The lymph which circulates through them may be too thick or too thin, and may coagulate, if at rest; it may offend in quantity, or in quality, or it may be totally

tally or partially obstructed, by a disease in the lymphatic system, or by accidents. Mr. Astley Cooper has found the thoracic duct stopped by small funguses, which had rendered the tube impervious; and the valves at their terminations were thickened and opake.

Dr. Wrisberg in his obs. anatomico medicæ de syst. vas. absorp. &c. in com. soc. reg. Got. *see medical commentaries,* Vol. 14.——says, both with respect to pathology and practice, one fourth of the diseases to which the human body is subjected, depend either in a direct or indirect manner, on the system of absorbent vessels. There are, " Dr. Wrisberg observes, " three kinds of affections which chiefly arise from the want of a due operation of the lymphatics. 1st. Those depending on obstruction to the course of absorbed fluids. 2dly. Those depending on too great a secretion of the finer fluids

fluids from the common mass, and 3dly, Those depending on the function of absorption, being either stopped or diminished."

We must not therefore attribute every disorder in the absorbents to inflammation.

Whoever wishes for further proofs that the disease in question is not occasioned by inflammation of the absorbents, I must refer to Dr. Hull's Essay on the *Phlegmatia dolens.*

I am now to consider the doctrines of a gentleman who appears to have read every thing, which has been written on the subject, and has practised midwifery twenty years.

Dr. Hull in his essay on plegmatia dolens, p. 204. says, "no doubt re-
" mains

" mains in my mind that the PROXIMATE CAUSE *consists in an inflammatory affection, producing suddenly a considerable effusion of serum and coagulating lymph from the exhalants, into the cellular membrane of the limb.*"

" Whilst the pyrexia which precedes or accompanies the complaint, proves beyond all doubt, the existence of general inflammatory action or diathesis; the excruciating pain, stiffness, tenderness, increased heat, and swelling of the parts, more particularly affected, equally evince the presence of topical inflammation.

" The seat of the inflammation I believe to be in the muscles, cellular membrane, and inferior surface of the *cutis*. In some cases, perhaps, the inflammation may be communicated from these parts to the large blood vessels, nerves,

" and

"and the lymphatic vessels, and glands "imbedded in them."

There can be no inflammation, in any part of a human or animal body, wherein red blood is usually circulated, but it will shew itself, by an encreased colour of the part, either of a red, purple, or bluish tint. Red blood is not usually circulated in the cornea, the pleura, nor the peritonæum, but when these parts are inflamed, a redness frequently takes place, in consequence of some red blood in them. There can be no inflammation in the external parts of muscles, cellular membrane, or any part of the skin, in the superficial blood vessels, cutaneous lymphatics, in their superficial trunks or in the glands, of the leg and thigh, but it may, in every instance where it occurs, be seen, in every living human subject. Pyrexia preceding, or accompanying the complaint,

is not an unerring symptom of inflammation, either acute or chronic, by some called passive, especially, when there is no hard, strong, full pulse, no redness, itching, nor throbbing of the part, no plethorick state of the general system, nor any partial plethora, which are none of them common attendants upon this disease. The excruciating pains, stiffness, tenderness, increased heat, and swelling of the parts, may be accounted for upon other principles.

If the lymph coagulate in the cellular membrane, why does this happen in the beginning, rather than towards the termination of the disorder?

If the lymph is contained in the cells of the cellular membrane, if we obtain one drop by puncture, why is the quantity limited?

Why is its absorption not promoted by the common means?

If the coagulating lymph be thrown out, in consequence of a greater determination of blood, why does it not take place more early?

Why does not the same occurrence sometimes take place, after tapping for the dropsy of the ovarium, amputation, or the operation for the popliteal aneurism?

Why does it ever happen to women during pregnancy, when an opposite state must prevail?

Why does it generally only take place in one limb, or in the other when the first is recovering?

Why the lymphatics of one side only,

only, should be filled, is evident, but why the blood vessels of one side should have the inflammation confined to them, when the same causes have been applied to both, and they communicate with each other, is not so obvious?

If it proceed from a general cause, why are its limits so certainly defined?

Why does it attack the lumbar region where the determination of blood before delivery would be greater than after?

Why does it commence at the upper part, rather than at all points nearly alike?

If this disorder be occasioned by a general or local plethora, or there exists a general or local inflammation.—Why does it ever happen to tender delicate women, exhausted and debilitated by violent floodings and other evacuations?

Dr.

Dr. Hull p. 118 says, "If an inflam-"mation, or enlargement of the lym-"phatic system of the limb, be the cause "of the swelling independantly of any dis-"eased action of the exhalants, it should "always precede the swelling, and should "be very evident." The same arguments may be used against inflammations of the arteries or the exhalants.

The Doctor says p. 132, "that those "whose limbs have been pained, or "anasarcous, during pregnancy, are "more subject to it."

This is an observation, which has not, I believe, been made by any other person, and to which I cannot subscribe,

Since I wrote my inquiry in 1784, I have seen many women, both in the puerperal state, and after miscarriages, who have been supposed to have had the disorder in question, but when I came

came to inquire into the symptoms, I found they had many which did not belong to the disease, and others, which did belong to it, were wanting.

Those supposed cases which most frequently occurred, were in women who had the *anasarca gravidarum.* After delivery and a little confinement to their beds, this complaint abates, or totally disappears; yet when they get out of bed, and hang their legs down, even in an easy chair, though the cause may be in some measure removed, the effect does not cease, but one or both legs swell, and such other parts, as have not recovered their tone; and this is attended with pyrexia, pain, stiffness, &c. but the pathogmonic symptom of the disease in question is wanting; and therefore whenever I see a swelled leg come on after *anasarca gravidarum,* I always view it with a suspicious eye.

It

In page 133 the Doctor says "That "it has in many instances attacked "women who were recovering from "puerperal fever, and in some cases "has supervened to thoracic inflamma-"tion."

That anasarca, puerperal fever, thoracic inflammation and *phlegmatia alba dolens puerperarum*, may succeed each other, or even exist together, I have no reason to doubt, as they are by no means incompatible; but as I have never seen such occurrences, I should therefore conclude, they are so rarely met with, as not to be sufficient, to build a theory upon.

The swelled legs, or thoracic inflammation succeeding puerperal fever, may have a different origin. In the appendix to my 2d, 3d, 4th, and 5th edition of my treatise on Pregnant and Lying-in Women, speaking of the ab-

sorption of matter, being the immediate cause of the puerperal fever, I have said, "This matter is either carried off by "some of the eumunctories, as by stool, "which is the most frequent, by a fresh "flow of the lochia, or by sweat; or "else is deposited upon some part "of the body, If in the cavity of the "abdomen, upon the lungs,[7] the liver,

[7] "It is almost needless to remark that this fever "must, of course, be complicated with any disorder "that the patient might happen to labour under at the "time of child-birth. The chief that I have met "with in this way of any consequence, hath been the "*phthisis pulmonalis.*"

Hulme on Puerperal Fever page 15.

"Both lobes of the lungs were inflamed, and some- "what black, particularly in their most dependent "part." *Ibid* 41.

——"adhesions of the lungs to the pleura; a collec- "tion of putrid serum in the thorax, and matter under "the sternum, as in the case of Harriet Trueman—on en- "quiry of the patient's friends, I could not find that "she had ever been in the least subject to any com- "plaint in the breast."

Leake on the Child-bed Fever p. 93.

"ver,[8] or upon any of the viscera it
"generally proves fatal; if upon the
"breasts, the *limbs*,[9] or any of the
"external parts, the patient always
"recovers."

"In una, quantum comperi, jecur erat mollis, "enormis, et postquam perscissum est, abscessum con- "tinere repertum."

Diss. Med. Inaug. de Febre Puerp. Patr. Keary. Edin. 1774, *p.* 8.

8 Dr. Hulme, p. 43, says, "The liver was of an "extraordinary magnitude; in the right lobe was found "a very extensive abscess."

9 Dr. Denman‡ says "she also feels great pains in "the back, hips and groins, and sometimes in one or "both legs, which swell, appear inflamed, and are "exquisitely painful." A little farther he says, "In "some there will be *a translation of the disease to the* "*extremities*, where the part affected will become in- "flamed, and a large abscess be formed." In another "place he says, "Should abscesses be formed in the "breasts, they are always much lamented, but there "is great reason to conclude, that they prevent more "grievous and dangerous complaints.'.

Dr. Leake says,† "some of those who survived, "recovered very slowly, and were affected with "wandering pains, and a paralytic numbness of the

‡ Essay on the Puerperal Fever, second edit. p. 9.
† Practical Observations on the Child-bed Fever, second edit. p.59.

Dr. Hull says p. 140, "Four cases "of phlegmatia dolens have occurred "to me since the middle of October "1799, which I shall relate here, as "they are marked by some circumstan-"ces, that strongly elucidate the essence "of the disease, and place its analogy "and connexion, with puerperal fever "in a striking point of view."

"limbs, like that of the chronic rheumatism. Some "had critical abscesses in the muscular parts of the bo-"dy, which were a long time in coming to suppuration, "and, when broke, discharged a sanious ichor."

Again, "Those who were seized with this fever were "not subject to abscesses of the breasts; and of those "who happened to have such abscesses, I have never "known one die; neither are they subject to a "diarrhœa, or much symptomatic fever, although the "pain attending a suppuration of the breast is often "very acute."

"It is remarkable that not one instance has been ob-"served, of any woman, who had an abcess in the breast, "being attacked with this fever; nor of one who, in con-"sequence of her labour, had such an affection of the blad-"der as to occasion a suppression of urine."

Denman's Introduction to Midwifery, vol. 2d, Edit. 2d. p. 494.

In case the 12th, that of Mrs.—— of Manchester, which is the first of the four here mentioned, the patient had, I must agree with the Doctor, both anasarca *gravidarum*, which was general all over her body, and peritonitis puerperalis, but I cannot allow that she had the *phlegmatia dolens*, for the following reasons. The skin of the limb, had not the milky whiteness, but was inflamed, nor was the swelling confined to the *labium pudendi* of that side which was affected, but extended to both *labia pudendi*. I will take the liberty of laying before my reader, Dr. Hull's own statement of this and some other cases.

" June 21st, 1800, in the morn-
" ing she was attacked with la-
" bour pains—the membranes burst,
" the os uteri dilated to about the size
" of a crown piece, and the *labia puden-*
" *di were most enormously swelled.*—She
" was delivered about noon.—July 6th,
" She was attacked with violent pain in
" the

"the left leg,—a blush of small extent "on the fore part of the leg,—July "7th both the *labia pudendi* were be- "come more *enlarged* more tense and "tender. July 8th a slight redness "upon the upper part of the thigh— "it was merely a blush, July 16th the "*labia pudendi* were still swelled—Ju- "ly 27th the swelling of the *labia pu-* "*dendi* was not entirely gone. The "left lower extremity was considerably "more swelled in an evening, than in "a morning. The *right leg* was also "swelled about the ankle, but the "swelling was much less firm, than that "of the other leg, and retained the "impression from the finger longer. "August 9th the thigh was of a darker "colour in many parts, owing to an "enlargement of the cutaneous veins, "and her knee was somewhat contract- "ed, so that she could not easily bring "her heel to the ground. Several red "spots appeared upon the leg. The

right

" right leg was œdematose nearly as
" high as the knee."

"August 19th...Nine A.M. She was
" not risen. Her limb felt more com-
" fortable, and was less stiff, since she
" used the hot bath. The thigh was
" swelled and *dark coloured* in some
" parts. Ten p. m. I saw her after she
" had been in the bath. The left limb
" was rather *more swelled than in the*
" *morning; the red spots which were*
" *about* half an inch in diameter, con-
" tinued upon the leg, but were not
" painful or tender when touched."

" August 23d The œdematose swel-
" ling of the right leg was very much
" reduced by the purging. The *swel-*
" *ling* and *stiffness* of the left lower limb
" were *evidently improved* and *the red*
" *spots were less conspicuous*, but the
" knee was still contracted, and obliged
" her to walk with the joint bent."

This

This complaint therefore, decidedly was not the *phlegmatia dolens*, but a return of the anasarca, which had preceded delivery, and I must confess I cannot see any analogy or connexion betwixt phlegmatia dolens, and puerperal fever.

Case 13th, being Dr. Hull's second. Mrs. Hulse of Henry-street, Manchester. There are some circumstances wanting in this case to enable me to decide positively, whether this was the phlegmatia alba dolens, such as the swelling of the corresponding *labium pudendi* and the white leg, but taking it for granted that it was, it does not go to prove, or disprove, any particular theory, except that the lymphatic glands or vessels never appeared to be sensibly inflamed or enlarged.

Case 14th, being Dr. Hull's third. Sarah Knight of Salford. "Her right "leg and thigh were swelled during her

" her pregnancy, and the veins were " enlarged; she was lame and suffered " so much pain in her hip, that she " could not lie on that side in bed. " She was delivered on Sunday the 1st " of July, 1798. The pain in the right " hip, and the swelling of her lower " extremity soon went off after her de- " livery.——On the Sunday follow- " ing, she dismissed her nurse, and un- " dertook the management of her " house. She remained very well till " Wednesday the 11th. On this morn- " ing about nine o'clock she was seized " with chillness and rigors, which were " succeeded by heat, head-ach, and other " febrile symptoms. About four o'clock " p. m. a violent pain seized her right " hip, which on the day following ex- " tended to her groin, thighs, leg, and " was afterwards succeeded by a tense " elastic, lucid, hot, tender, painful " swelling, of the whole limb." What- ever was this woman's disorder, it appears to

to have been a return of the complaint, which she had been troubled with, previous to her delivery; after which she got well, with the assistance of rest, and an horizontal position. When she began to exercise and take the management of her house, earlier than she ought to have done, before the parts had recovered their tone, the disorder returned. But it wanted two principal symptoms, the swelling of the labium pudendi, and the white leg.

The fourth and last case which Dr. Hull saw, was Ann Massey, "During
" the two last months of her pregnancy,
" her legs and feet become so much
" swelled, that she was obliged to have
" a larger pair of shoes made. She was
" delivered on the 26th of June, 1800.
" July the 1st, she experienced some
" coldness and shivering, and other fe-
" brile symptoms. July the 5th she was
" seized with pain in the lower part of
" the

" the chest, on the left side; respiration
" was difficult, her cough slight. The
" symptoms of pyrexia were much in-
" creased. July 22d, the pain in her side
" went off and a pain suddenly invaded
" the whole left lower extremity, which
" was equal in every part. It did not be-
" gin in one part, and spread over the limb.
" The limb was rubbed, and soon after
" began to swell, &c.———August the
" 10th, the right limb was attacked in
" the same manner."

In this case there was certainly the *anasarca gravidarum*, and after delivery, there might be thoracic inflammation, but I think it not improbable that it might be *hydrothorax*. My reason for being of this opinion is, that she had anasarca gravidarum. She was delivered on the 26th of June, and on the 1st of July, symptoms of pyrexia appeared, and on the 5th, she was seized with pain in

in the lower part of the chest, attended with difficult respiration, and on the 22d the pain in the side went off, and a pain suddenly invaded the whole lower extremity, &c. August the 10th the right limb was attacked in the same manner. Does not this shew evidently that this was a continuation of one disorder, viz. dropsy? That it was not the *phlegmatia alba dolens,* I am perfectly satisfied. It not only wanted the pathognomonic symptom, the swelling of the corresponding *labium pudendi* and also the *tumor albescens,*but it had symptoms which are not compatible with this disorder, viz. p. 182, " the cutaneous veins about " the top of it, (the thigh) were much " enlarged and blue, imparting a dusky " colour to this part." P. 184 "The " cutaneous veins of the thigh were " much enlarged, and appeared very " numerous, so that the colour of the " thigh was much altered."

There

There is but one case more, in Dr. Hull's Essay, which I shall have occasion to notice, and this will be necessary, because it is the only one, besides Professor Zinn's, where the disease has been supposed to prove fatal. This case of Mrs. C——— of Manchester, was communicated to Dr. Hull by Mr. Tomlinson. See case 19th, page 191. "In the latter part of her preg-
" nancy, *her legs were œdematose and*
" *very much swelled as high as her*
" *knees.* She was delivered on Wed-
" nesday morning the 18th of October,
" 1798. On Monday morning a-
" bout 7 o'clock, I was called to her,
" and was very much shocked to see
" such an alteration in her countenance
" ———She was extremely debilitated,
" her features were excessively shrunk,
" her pulse was extremely small, and
" so quick as not to be numbered——
" at ten o'clock in the evening, she

" complained

" complained of violent pain in the calf
" of her right leg——on Sunday morn-
" ing at nine o'clock, her leg was now
" much swelled; at six in the morning
" the pain had extended to the thigh
" ——at eleven in the evening, the
" depression of the strength, and other
" unfavourable symptoms continued as
" before. The whole limb on exami-
" nation was tense, considerably swelled,
" and very tender to the touch, but not
" discoloured. There was no inflam-
" mation or enlargement of the lym-
" phatics in the leg or thigh. The
" state of the inguinal glands was not
" inquired into. She died about three
" o'clock on Wednesday morning. Af-
" ter her death the leg burst and dis-
" charged a liquid slightly tinged with
" blood, but this was in small quantity
" and did not reduce the swelling ma-
" terially. Neither the abdominal ca-

" vity

" vity nor the limb were examined by
" dissection."

It does not appear that there was any swelling of the corresponding *labium pudendi*, the leg not white, not that milky whiteness, described by Levret, not the *tumor albescens* of Callisen. The swelling did not begin in the groin or thigh, as described by the best authors, but in the leg. I must therefore reject this case, as not being the *phlegmatia alba dolens puerperarum*, but must attribute her death to a return of the anasarca, which had preceded her delivery, especially, since after her death the leg burst, and discharged a liquid, slightly tinged with blood, this being a circumstance, which frequently happens in anasarca, but never in *phlegmatia alba dolens puerperarum*.

I think therefore, I have proved decidedly, that the disease in question, cannot

cannot be owing to any inflammation in the absorbents, nor to any inflammatory affection, producing suddenly, a considerable effusion of serum or coagulating lymph, from the exhalants into the cellular membrane of the limb, nor to any general inflammatory action or diathesis, nor to any general cause whatever. And, that no connexion nor analogy subsists, betwixt phlegmatia alba dolens purperarum, anasarca, puerperal fever, or thoracic inflammation. And, that there are various swellings in the lower extremities, even in lying-in women, which are different diseases and do not derive their origins from the same causes.

I do not contend that swellings, both of the upper and lower extremities, in and out of the puerperal state, may not arise from the different causes assigned by the Gentlemen whom I have quoted; but I am well satisfied that many of the

cases

cases which they have reported are not the œdema puerperarum of CALLISEN, nor *phlegmatia alba dolens puerperarum*, which I have described.

The following case is different from any of those related by the above named Gentlemen.

A. B. A strong healthful woman, had a very laborious parturition, and was delivered, with the assistance of the forceps, of her first child, which died in the birth. She afterwards complained of a slight numbness in her left leg and thigh, and the leg swelled in a trifling degree, but recovered of these complaints in a short time. Her second parturition, was equally laborious, when I was called into consultation. After waiting as long as was prudent, she was delivered again with the assistance of the forceps, by her accoucheur in ordinary, and the child likewise died

in

in the birth. Whilst the forceps were using, she was seized with great numbness in the left lower extremity, which was the side on which she lay, the numbness continued many months after her delivery, accompanied with a total inability to move the limb, but without pain. In a few days after her delivery, the leg swelled to three times its natural size, had a great stiffness and was of a pale colour. The thigh was not much swelled, and the groin and *labium pudendi* were not in the least enlarged. Though it is now two years since her second delivery, her leg continues to swell very considerably, particularly in an evening, and notwithstanding she can walk about without any assistance, she complains of numbness and debility in the whole limb.

This case like many others, which have been described, is clearly not the *phlegmatia alba dolens puerperarum*, as both the pathognomonic and many other symptoms

symptoms of that disease are wanting; is it not very probably owing, to an injury, some of those nerves, which form the sciatic nerve, received in the pelvis, from the force used in delivery?

ON THE

NATURE AND CAUSE

OF THE

Disorder.

HAVING, I think, proved, what is not the nature and cause, of this disorder, I ought now to prove what it is.

In my former INQUIRY, I offered my opinion of the REMOTE CAUSE of this disorder, with the greatest diffidence. But I can now speak with confidence. I have such a body of evidence to produce, such a successive train of circumstances, as will outweigh, any single

single case, or any single dissection, that can be brought in opposition to them.

When a healthful woman, who has not had the *anasarca gravidarum*, is seized with this disorder, in her lying-in, in its simple, perfect, but uncomplicated state, and it is confined to one side *only*, which happens about nine times out of ten, it is then allowed by all authors, who have written professedly on the subject, that the swelling is confined to the limb, nates, lumbar and hypogastric region, groin and labium pudendi of that side, and I must add, that it occupies all those parts, and never in the smallest degree, deviates from that line. I should be then glad to know, whether there are any series of vessels, or branches of vessels, or organized parts, in the whole human frame, which occupy that space, and that only, except the absorbents, which arise from those

those parts, and pass under Poupart's ligament?

In addition to what I have said in my former Inquiry, I will now endeavour, to describe the course of the absorbents, as far as is necessary, for my present purpose. The exhalant arteries having poured out their lymph, into the cellular membrane, upon the external surface of the body, and into the different cavities of the parts before mentioned, it is taken up by the tubes of the absorbents, and is conveyed by the lymphatic vessels, into the lymphatic glands, by the *vasa inferentia*, and is conveyed from those glands, into the lymphatic trunks, by the *vasa efferentia*. All the lymph from the parts, affected by this disorder, is brought by the absorbents, which pass under Poupart's ligament, and under the peritoneum, lying between it, and the body of the os pubis, where that bone forms a part of the

the brim of the pelvis, on each side of the crest of the pubis. This part of the prominent line, which forms the brim of the pelvis, on each side of the crest of the pelvis, in some subjects is very obtuse, in others as sharp as an ivory paper folder, and in one at this time in my Museum, belonging to Mr. Gibson, it is as sharp as some table knives with the edge jagged like a saw, but in all other respects it is a well formed pelvis. A part of the absorbents, which go under Poupart's ligament, pass up along with the iliac artery, upon the brim of the pelvis, and another part dips down into the cavity of the pelvis, wrapping round the prominent line of the brim of the pelvis, formed by that part of the pubis which, in some subjects, is so extremely sharp, and forms an acute angle, along with that bone.

To this I must likewise add, that the deep seated lymphatics, of the lower extremities, are situated among the muscles; they accompany the *blood vessels* and

and are few in number, when compared with the subcutaneous set.

Dr. Ferriar has totally misrepresented my account of the remote cause of the swelling of one or both of the lower extremities in lying-in women, and has argued and asked questions agreeable to his own representation of my statement. He says[10] "That the disease "may be produced without a rupture of "a lymphatic in the *groin* which "Mr. White imagines to be affected by "the pressure of the child's head, a-"gainst the brim of the pelvis, during "labour: a supposition very question-"able in itself, even if there were no "direct facts subversive of his opinion." Here he stops short, and leaves out the principal part of my theory,[11] viz. "When the orifice made in the lym-"phatic is healed, and the diameter of

10 Ibid p. 11.
11 Inquiry p. 51.

" of the tube is contracted, or per-
" haps totally closed by the cicatrix,
" the lymph is retained in the lympha-
" tic vessels, and glands, of the limb,
" and *labium pudendi,* and distends
" them to such a degree, and so sud-
" denly, as to occasion great pain and
" swelling, which always begin in that
" part, next to which the obstruction
" is formed; and when the obstruction
" is in part or wholly removed, or the
" lymph has found a fresh passage, the
" part next to it is consequently first
" relieved."

Mr. Trye says page 38 of his Essay, " Now in the first place, I believe no " experiment has shewn that the lym- " phatics are ruptured in the living " body by any other accidents, than " those which destroy aud tear to " pieces the vessels in general of a given " part." To this I answer, that some experiments made by Mr. Astley Cooper, do

do shew that the absorbents have been ruptured in the living body by their own contractile power.[12] And though they were

[12] Medical Records and Researches 1798, Art. vii. p. 86 "Three instances of obstruction of the thoracic "duct, with some experiments, shewing the effects of "tying that vessel, by Mr. Astley Cooper, Lecturer in "surgery, and assistant Lecturer in Anatomy, of St. "Thomas's Hospital."

EXPERIMENT I.

"The extremity of the thoracic duct of a living dog "was tied. The dog died 48 hours after the duct had "been tied.—On opening the abdomen many of the "viscera were obscured by an effusion of chyle, &c.

"These appearances were owing to the *rupture* of "the receptaculum chyli, which in the dog is very large.

Experiment 2d. "Tied the thoracic duct of a dog. "He died on the 5th day. EXAMINATION-Chyle "and lymph had been extravasated in so large a quan- "tity, as to have entirely concealed the aorta and vena "cava. The receptaculum chyli had *burst*, and it was "from this part that the fluids had escaped. The tho- "racic duct was much distended with chyle, the valves "having prevented its escape by regurgitation."

Mr. Cooper says "The contractile powers of the "absorbents are proved by the experiments to be very "strong, for it appears that their action is sufficient to

were made upon brutes, that can be no objection to Mr. Trye, because he says p. 45 " It must not be said that no con-

" occasion a rupture of their coats. It it true that the " receptaculum-chyli, which was the part *broken* is " thinner, and less capable of resistance than the tho- " racic duct, yet it is able to bear the pressure of a co- " lumn of quicksilver, more than two feet in height, " the force therefore exerted by the absorbents, must " be acknowledged greater than that of such a column " of mercury; more especially when it is remembered " that living parts will resist a force which will readily " tear them when dead."

" It is not necessary to tie the duct to produce this " effect, if an animal is fed with milk, and after an " hour the extremity of the duct is exposed, and com- " pressed only for a few minutes, upon subsequent ex- " amination the receptaculum will be found *ruptured*."

Mr. Cooper gives you one instance, see p. 109, " When " the duct being tied as in the former experiments, al- " though the dog for several days appeared duller, and less " inclined to eat than before; yet he gradually recovered. " It was found upon inspection, that a vessel given off " from the thoracic duct, opposite to the division of the " trachia into the bronchiæ, had passed into the ab- " sorbent trunk placed on the right side of the neck."

" clusion is to be drawn from an experi-
" ment on a brute; for the same con-
" sequences, as to a subsequent change
" of structure, follow wounds in the
" vessels of quadrupeds and of man.
" If an artery be wounded, not divided
" in a brute, there will be a contraction,
" and even an obliteration of its cavity;
" and the same change takes place, if
" the wound be inflicted on the artery
" of the human subject."

Dr. Latham has seen a rupture of the lymphatics in the living human subject. His words are[13], " In some in-
" stances indeed, even *actual rupture* of
" a lymphatic, as I have occasionally
" *seen* in rheumatism, may be the
" consequence of distension."

It was the opinion of Mr. Hewson so long since as the year 1774, that if a lymphatic

13 On Rheumatism and Gout, p. 14.

lymphatic vessel were tied, in a living dog, it would burst.

Dr. Baillie in his morbid anatomy, p. 107, says, "The thoracic duct has "also been known to be ruptured; al-"though this is exceedingly rare."

Mr. Trye says, p. 39 "Secondly, The "head of a child in its descent can act "upon the Iliac vessels at most, *but as "the pad of a tournequet does upon those "of the upper and lower extremity;*" and a little further he says, "yet a rup-"ture of a lymphatic trunk has never "been known, or even suspected to fol-"low the application of a tournequet "on the arm or thigh."

The use of the pad of a Tournequet, is to stop the circulation of the blood in the arteries of a limb; if you effect that purpose, you certainly prevent the exhalants from throwing out the lymph,

this

this being granted, the absorbents can never take up such a quantity of lymph, as to endanger the bursting of a lymphatic, or even to gorge it with lymph. This objection therefore, to my Theory, must fall to the ground.

He says, p. 40, "Thirdly, If I compress a lymphatic trunk, I readily "force on its contents, if the remaining "part of the road to the thoracic duct be "obstructed, and then its sides will be "squeezed together; and by reason of "the thinness of its coats, it will in the "compressed portion occupy the smallest share imaginable, so that it will "hardly be ruptured in the place in "which the pressure is made;" The answer to this is, that if the lymphatic trunk be compressed between two hard bodies, viz. the Gravid Uterus, and the brim of the pelvis on one side of the Os Pubis, when it forms a very obtuse angle, it may produce a slough, and in

time

time a separation of that slough; but if the brim of the pelvis forms an acute angle in that part of the os pubis, so as to be as sharp as an ivory paper folder, or a knife, it may cut immediately through that lymphatic trunk. He goes on to say, "and if from the distension of "the vessel by the obstructed return-"ing lymph the vessel must be rup-"tured below the pressure, no reason "can be assigned why the breach should "always be made in one precise spot of "the inferior portion of the trunk, ra-"ther than in any other; for example, "why should it happen within Poupart's "Ligament rather than somewhere in the "leg and thigh." Besides the reasons I have already given, Mr. Cruikshank says, p. 71, "The glands of the thigh "or arm will sustain a large column of "mercury; whilst the glands on the me-"sentery, or *on the lumbar Vertebræ*, "*easily burst*. In this respect, the last re-"semble the viscera of the abdomen and thorax

" thorax, whose texture is much more " delicate and tender, than those of the " external muscles." And Mr. Astley Cooper says, " It is true that the recep- " taculum Chyli, which was the part " *broken*, is thinner, and less capable " of resistance than the thoracic duct." It is therefore perfectly clear that all the different parts of the absorbents are not equally capable of making the same resistance.

Fourthly, Mr. Trye speaking of the lymph says, p. 41, " when in circulation " it is probably the thinnest of the known " animal fluids." Q. Is it thinner than the tears, the saliva, the urine, or water in the ventricles of the brain?

Mr. Hewson, in his Experimental Inquiries, part second, p. 102, speaking of the lymph, says, " But notwith- " standing the plausibility of all the " arguments from which such conclu-

" sions

" sions were made, with respect to these " fluids, it will appear in the sequel, " that although they be so transparent " in living animals, and so watery in " dropsies, yet in animals in health they " differ so much from water, that they " not only coagulate when exposed to " heat, but also when merely exposed " to the air; in which circumstance " they agree most with that part of the " blood called the coagulable lymph."

Mr. Trye further says, p. 42 " Now " were a rupture of an external Iliac " trunk to take place, either the lymph " must for a long time continue to flow " through the wound, or by a speedy " coagulation of what was first extrava- " sated, the further escape of it must " be prevented. Admitting the first " proposition, the lymph would be dif- " fused through the cellular substance " of the abdomen, and produce an uni- " versal œdematose swelling of the pa-

" rietes

"rietes, and in that case, the ill effects
"of pressure, would be perceived im-
"mediately after parturition: but if
"the latter proposition be true, then the
"lymph could not escape so as to make
"pressure on any particular viscus, as
"is supposed by Mr. White in his re-
"marks on Case V.—Vide Inquiry,
"p. 50."

The Iliac lymphatic trunk is situated behind or under the Peritoneum, and if it be ruptured, the lymph will be extravasated behind that membrane; the quantity, and the time it takes in discharging, will vary in different subjects; but so situated, and so circumstanced, it is not in the least probable that the lymph should be diffused through the cellular substance of the abdomen, and produce an universal œdematose swelling of the parietes; but as both the bladder and the uterus as well as the ruptured lymphatic, lie behind the Peritoneum and

so

so very near together, I can easily conceive that the lymph may in some cases, be extravasated and accumulated in that part, in sufficient quantity to press upon those two organs, and the urethra.

He further adds, p. 42, "Fifthly I "have a preparation of lymphatics "which being compressed by a tumor "could not transmit the lymph: the con- "sequence was not that they burst, but "that yielding to the impelled lymph, "they became varicose and suffered "their diameters to be enlarged to the "size of a crow's quill, and as they "grew larger, their coats seemed to be "thickened." When a lymphatic is obstructed by a tumor which has been gradually enlarging, it is not probable that it would burst, but would suffer its diameter to be enlarged, and the lymph would find itself a new route, and if it did not, I should be glad to know what would become of it?

" Sixthly, I have seen the swelling " of a leg and thigh entirely removed " in forty-eight hours." I must acknowledge I never saw or read a case of the genuine *Phlegmatia alba dolens Puerperarum* getting well in so short a time; and I am rather surprised to find a doubt expressed " with respect to the " lymphs finding a new route." After so many operations successfully performed in this kingdom for the aneurism, surely there can be no difficulties of this sort arise in the lymphatics, which are known to be more numerous, and to anastomose more frequently, than the arteries. And I am still more surprised when Mr. Trye asks the question, " or what is to dissolve " the lymph jellied in the vessels, and " fit it for quickly pervading some of the " narrowest canals in the body?" There is hardly a part of the human body which may not be absorbed, but what will be most in point in this case[14], is the large,

[14] Medical and Chirurgical Transactions, vol. I. art. 9. p. 148.

" firm, and brawny" aneurismal tumors in the ham, which have been absorbed, after the Femoral artery has been tied[15].

Dr. Ferriar says[16], " Mr. White " has laid particular weight on the commencement of the *swelling* at the " groin, because he has made that fact " the basis of his theory: and from his " general accuracy I have no doubt " such was the progress of the swelling " in the cases which fell under his own " observation. But it is not invariably " the course of the disease."

I have never seen nor read a case, which was the genuine disease, that the *swelling* did not begin there.

The commencement of the *swelling* at the groin, was not first noticed by me, but

[15] See Medical and Chirurgical Transactions, vol. 1. art. 9. p. 138.

[16] Medical Histories, vol. 3. p. 110.

but by Puzos, Levret, Sagar, &c. who could not make that fact the basis of their theory, which was that of *une depot de lait*. This observation has since been confirmed by Callisen. These gentlemen could have no motives in this relation, but to be faithful recorders of the symptoms which they had observed.

Dr. Ferriar observes that, "In dislo-
"cations of the Humerus for example,
"where the capsular ligament is torn,
"and the head of the bone is forced
"under the axilla, it is very probable
"that some of the lymphatics may give
"way. Yet we are not acquainted with
"any instance in which the absorbent
"vessels, or conglobate glands have be-
"become enlarged and hardened, ac-
"companied with this particular kind
"of effusion, though such dislocations
"have not been reduced for several
"months, and sometimes not at all.
"Rupture of the absorbents is certainly

 "a much

" a much more probable occurrence, in
" such circumstance than in the act of
" parturition."

The reader will see by note [17] that I had a long time ago paid great attention to the laceration of the capsular ligament by dislocation of the shoulder joint; and

17 " For example, I have for many years taught " the following new doctrine about luxations, viz. " That when a dislocation is produced by violence " in an healthy state of the joint, the capsular liga- " ment is lacerated, not simply stretched. I proved " it to be highly probable from the anatomy of the " joints, and from experiments made upon dead bo- " dies; and shewed that the difficulty of reduction, " in some cases, does not depend on the imaginary " contraction of muscles, nor the impossibility in " others, on the imaginary inspissation of the *synovia*; " but that in a simple dislocation, the facility or dif- " ficulty of reduction may probably arise from the " nature of the laceration; and that the impossibility " of reducing an old dislocation is owing to the union " of all the lacerated with the neighbouring parts. " In my lectures, I always signified a desire of see- " ing such cases. Mr. Gataker was kind enough, " some years ago, to gratify my curiosity upon one

and I may say, that I have had some experience in accidents of that kind; that I have been possessed of every source of information; and that I have employed it to an useful purpose; viz. to the improvement of that branch of the profession; but I am rather at a loss to know what the Doctor aims at. Does he think it possible that the bursting of

"such occasion; and Mr. Thomson lately did me "that favour, in a case that proved, in a most sa-"tisfactory manner, every circumstance which I had "advanced; at least as far as one case could prove "any general doctrine. Surely men of sense must "think that it was right to give my thoughts and "observations upon this subject at my lectures. I "was doing justice to my pupils to give them every "idea, however imperfect, that might be useful to "them in their profession. Accordingly Mr. White "of Manchester, soon after he had attended my "lectures, applied this doctrine to practice in treat-"ing dislocations; and with great success, as ap-"pears by his paper in the second volume of Me-"dical Observatations, published at London; and in "the letter which accompanied that paper, he did me "all the justice that I could expect."

Medical Commentaries, part 1st. *By W. Hunter, M. D.* 1762, *p.* 60, *note.*

of lymphatic vessels in the capsular ligament, which are so small as never yet to have been demonstrated, can bring about such an effect? Or does he think that the head of the Humerus when out of its place, and lying in the soft parts can stop the circulation of the lymph, in the principal trunks of the absorbents, when not opposed to any hard body? As easily would it stop the circulation of the blood in the principal trunks of the veins, and arteries, neither of which can be allowed.

Dr. HULL has copied Mr. Trye's objections to my theory, and has likewise made some objections of his own.

The Doctor says, p. 114, "In oppo-
" sition to this theory, it may be urged."

"1st. That there is no evidence of the
" bursting of a lymphatic during labour,
" much less of its healing in such a man-
ner

" ner as to render the canal impervious, " or occasion a diminution of its diame- " ter." There is the evidence of Mr. Astley Cooper, that the contractile power of the absorbents is sufficient to occasion a rupture of their coats by tying them. That a lymphatic vessel when ruptured, either by its own contractile power, or by being lacerated, may heal in such a manner as to render that canal impervious, as well as those of the veins and arteries, there can be no doubt; and if it be cut through, it is not probable that the divided ends will ever unite again.

" 2dly, That there is not the least " reason to suppose, that a lymphatic " trunk ever bursts, in consequence of " the transient obstruction of the lymph, " induced by a labour pain. If this " temporary obstruction, which does not " occasion any sensible enlargement of " the limb, could produce the rupture of

" of a lymphatic, we might expect from
" the long continuance of the obstruc-
" tion which takes place according to
" Mr. White's hypothesis, that every
" lymphatic in the limb wonld burst,
" before the limb had arrived at half the
" size, at which we know it attains in
" the disease under consideration." Mr. A. Cooper has likewise proved, see note p. 64, that the transient obstruction of the lymph for a few minutes, will burst an absorbent. Whenever the swelling of the limb loses its elasticity, and pits upon pressure, it is probable, that many of the lymphatic vessels are burst.

" 3dly, If the swelling of the limb
" be occasioned by a congestion and
" coagulation of lymph in the absorb-
" ents, how is it possible it could ever
" subside? How is it possible that the
" swelling should be so nearly even as
" it is found at first? Answer. The absorbents

absorbents are certainly as capable of absorbing coagulated lymph [18] as coagulated blood, but they are equal to ten times more than that. The swelling being so nearly even, is owing to the superficial lymphatic vessels in the extremities of the human body being so very numerous, fourteen trunks frequently accompanying one vein.

Dr. Hull goes on to ask "why can "we not trace the gradual increase of "the lymphatics in every instance from "a slightly enlarged, or varicose state, "to that great degree of distention, at "which they must arrive in order to "contain all the fluid, necessary for the "production of this enormous swelling "of the limb ?" To this I answer, we

M can

18 Dr. Hull in a note to page 341, says, "For "agreeably to a law of the animal œconomy well ex-"plained and illustrated by the late John Hunter, "weak, diseased, and newly formed parts, are readily "absorbed, when exposed to pressure or irritation."

can trace the gradual increase of the lymphatics in every instance, from the groin to the ends of the toes.

As it has been so confidently asserted that the transient labour pains are unable to burst a lymphatic, let us see what misfortunes they are capable of effecting.

Dr. Macbride in the 5th. vol. of the Medical Obs. and Inquiries, art. viii. p. 89, informs us that "There is
" an accident to which women are liable
" in the time of labour, that has escaped
" the notice of all the writers with whom
" I have been acquainted, but which
" nevertheless, is accompanied with
" great distress, and appearances that
" are extremely alarming, and it is this:
" Some of the blood vessels bestowed on
" the vagina and parts which constitute
" the os externum are ruptured, and the
" blood being accumulated in the in-
" terstices of the cellular membrane,

" immediately

" immediately raises a monstrous swell-
" ing of the labia and perineum, which
" increases rapidly, until the load of ex-
" travasated blood comes to be so great
" as to burst through the teguments."
The Doctor relates two cases of this kind which both terminated favourably.

Dr. Denman in his introduction to the practice of Midwifery, vol. 2d. and 2d. edition, p. 472, tells us he has met with two instances of this disorder, but believes it is void of danger. But this is not always the case. In the year 1752, Mrs. Moss, aged 27, wife of the Rev. Thomas Moss, Fellow of the collegiate church in Manchester, a well made healthy woman, above the middle stature, with a capacious pelvis, was attended in her labour, (which was a natural one) of her first child, by Mrs. Whalley, an eminent midwife of this town, at that time in great practice. At the latter end of the labour, one of the

labia pudendi suddenly swelled to an enormons size, and, in the last pain, burst, and poured out a great quantity of blood, and the lady fainted away. My late father, Dr. Thomas White, who practised midwifery, was immediately sent for. He found her in a dying situation, from the great loss of blood, which had proceeded from the labium, there not being any flooding from the uterus, or vagina. She expired in less than an hour, after her delivery. I have met with two cases of this kind, but the patients both recovered.

There is another misfortune which women are liable to, in consequence of labour pains. Dr. Smellie in his Treatise on the theory and practice of Midwifery, p. 390, gives the following description of it. "If in consequence "of the long pressure of the child's "head at that part of the *vagina* where "its outward surface is attached to the

"back

"back and under part of the bladder,
"the mortification affects the coats of
"the *vesica urinaria*, as well as those of
"the *vagina*, when the slough falls off,
"the urine will pass that way, and hin-
"der the opening (if large) from being
"closed."

Dr. David Spence, in his system of Midwifery, has described the misfortune, in nearly the same words, and has given two cases by way of explanation, one [19] of them proves that it may likewise happen

[19] "I was sent for one morning to see a woman "who was in a lingering way; but, as every thing "was fair, though the pains weak, I left her, after "leaving some directions with her midwife. The "next day I was again sent for, and the messenger "told me, that the child's head had been born more "than half an hour before she was dispatched. It "was another hour, or more, before I could reach the "place, which was nearly a mile and an half distant. "I found the head born, but the shoulders sticking. "The head was much swelled, in so far that I could "not properly grasp it, my hands being naturally small.

pen from the shoulders of the child resting too long upon the brim of the pelvis.

I am acquainted with one lady, who had

" small. At that time, unacquainted with the im-
" provements since made by Mr. Charles White,
" I applied a soft cambrick handkerchief under the
" chin of the child, the two ends of which were
" brought to meet at the vertex, and given to the
" midwife, in order to assist me in the extraction;
" with a view of facilitating which, I endeavoured
" to introduce one finger over the shoulder, so as to
" get it into the arm-pit, and use it as a blunt hook,
" when I was agreeably surprised by finding the
" shoulder slip from that part of the pelvis where it
" was resting, and with very little exertion the child
" was brought into the world. I am almost ashamed
" to say, that the reason of this mode of facilitating
" a delivery which had been so tedious, did not occur
" to me till I had the pleasure of seeing Mr. White's
" Treatise."

" From the time that the child had remained in the
" birth, so great a degree of inflammation took place,
" that a mortification ensued, the consequence of
" which was a *stillicidium urinae*, under which she
" long laboured, and, though rather better, is still from
" time to time afflicted with it."

Vol. second, Case 17, page 442.

had the misfortune, after her first parturition, to have the Phlegmatia alba dolens puerperarum, on one side; in her second confinement, she had it on the other side; and in her fourth, she had an opening formed betwixt the neck of the bladder and the vagina. Her pelvis is well formed, and her labours were all natural. She recovered from her third parturition without any material complaint. I have seen several cases of openings betwixt the vagina and the bladder, and I have met with them at different periods after delivery, according to the time which the sloughs took in separating, from a few, to many, days. The method of ascertaining the nature of this complaint, when it is suspected, is to introduce a female catheter into the urethra, and the finger into the vagina, and if there be an opening, the catheter will easily pass through into the vagina.

A third misfortune, and that a very important

important one, sometimes happens. It is described by Mr. John Bell in his Anatomy of the bones, &c. vol. 1st. p. 140. " The BRIM of the PELVIS is
" that oval ring which parts the cavity
" of the pelvis from the cavity of the
" abdomen : it is formed by a continued
" and prominent line, along the upper
" part of the sacrum, the middle of the
" Ilium, and the upper part or crest of
" the pubis. This circle of the brim
" supports the impregnated womb, keeps
" it up against the pressure of the labour
" pains ; and sometimes this line has
" been *as sharp as a paper folder, and has*
" *cut across the lower segment of the*
" *womb ;* and so by separating the womb
" from the vagina, has rendered the de-
" livery impossible ; and the child es-
" caping into the abdomen among the
" intestines, the woman has died."

Dr. Garthshore in his observations on extra-uterine cases and on ruptures of the

uterus, has given us the following case.

CASE. I.

"Though sudden ruptures of the
" cervix uteri may be often less dan-
" gerous than those near the fundus,
" yet there is one cause of transverse
" division of the uterus, which, whether
" delivery be performed or not, is, I
" believe, always fatal—I mean where
" the texture of the uterus is destroy-
" ed, and inflammation and mortifica-
" tion brought on by the pressure,
" during labour, of the projecting pro-
" cess of the os sacrum, or *sharp*
" *ridges of the os pubis*, or ilia, in a
" narrow pelvis, against the head or
" breech of the child. Of this I saw
" a very remarkable instance in Au-
" gust, 1786. A woman, with a nar-
" row pelvis, had, at the full time, a
" breech presentation, and though she
" did not suffer the strong compressing
" pains

"pains of labour more than twelve "hours, yet, at the end of that period, "and before the os uteri was completely "dilated, the whole fore part of the cer-"vix uteri separated from side to side. "This was owing to the pressure of the "large breech of the child, against the "sharp ridges of the ilia and pubis. The "child passed into the general cavity of "the abdomen, and a foot presented.

"In less than two hours after the "accident the child was extracted, "dead, and with no other difficulty "than what was occasioned by the nar-"rowness of the pelvis; but the woman "survived the delivery only five hours.

"The posterior part of the cervix "uteri was found to be worn through "by a large projection of the sacrum, "which was angular and sharp, *but not* "*so much so as the internal superior ridge* "*of the os pubis and ilia, which resembled*

"*the*

" *the edge of an ivory folder, and had cut*
" *the uterus through in the manner a liga-*
" *ture does a polypus.*

" In all cases where division of the
" uterus is occasioned by preceding
" compression and mortification, I con-
" sider the fate of the woman as de-
" termined before that accident takes
" place. This may explain how com-
" paratively short a time some women
" can bear the compression of a head or
" breech in the narrow pelvis to what
" others can, and how sudden the fate
" of many must be after such a rupture.
" This ought to lead us, if possible,
" to ascertain, as well as we can, in
" the earlier part of the labour, not
" only the size, but the conformation of
" the narrow pelvis, and whether there
" be any sharp angles, in which case
" compression is always to be dreaded."

London Medical Journal, vol. 8.
for the year 1787, p. 376.

CASE II.

" What one has seen, perhaps, by
" singular chance, he is nevertheless
" apt to consider as the most natural or
" frequent occurrence. The rude exer-
" tion of manual operation, or the vio-
" lent efforts of the child, are described
" as the most frequent cause of the rup-
" ture of the uterus. But in a case
" of this kind, which I met with, when
" the child's arm projected into the
" belly, amongst the viscera, the cause
" was on dissection found to be very dif-
" ferent; for the pelvis being extremely
" narrow, little more than an inch in
" width, *the uterus by the continued pres-*
" *sure betwixt the brim of the pelvis and*
" *the child's head, had been destroyed in*
" *the course of a tedious labour*."

System of dissections, by Charles Bell, part third, p. 89.

Dr. Hull in his second letter to Mr. Simmons, part second, p. 209, says, " Where

" Where any particular obstacle to the " expulsion of the child takes place, a " rupture of the uterus may happen, " from the uterine contractions being " unusually strong; or from the tex- " ture of the lower part of the uterus " being so far injured *by being press-* " *ed forcibly against the bones of the* " *pelvis, that it is no longer capable of* " *sustaining the violence of its own con-* " *tractions, or is even worn through.*

CASE III.

On Monday the 24th of March, 1800, I was called, at six o'clock in the evening, to a consultation, along with Mr. Hall, and Mr. Wood, to visit Jane Kennerly, of Water-street, Manchester, aged 35, an home patient of the Lying-in Hospital, who was then in labour and was attended by Mrs. Bradley, the midwife. The account she gave of herself was, that this was her eighth pregnancy, that her parturitions had been very easy, and she had enjoyed very good

good health, till about the second or third month of her present pregnancy, when she was seized with pain, and lameness, in her hips, resembling the rheumatism, and had been, ever since, very little able to move. The membranes had burst eight days before, when she had very strong pains, which in a short time abated, and had been trifling ever since. The midwife had never been able to ascertain, what part of the child presented, nor had the mother perceived the child to move, since the pains abated. Rigors, very quick pulse, and other febrile symptoms, together with a putrid diarrhœa had so exhausted her, that we were unanimously of opinion, that she was in a dying situation, and therefore did not judge it prudent to make any attempt to deliver, but directed a cordial draught, with an opiate. She expired in four hours after we saw her on Monday evening. On Wednesday evening, the body was open-

ed

ed, by Mr. Hall, in the presence of Mr. Gibson, Mr. Worthington Barlow, and myself. We found the child in the cavity of the abdomen, with the head lying up to the mother's stomach, with the face to the back, envelloped in coagulable lymph. We discovered that the child had escaped out of the uterus, through a laceration, in the anterior and right side of the neck of that organ, four inches in length. The Placenta was in the uterus, but detached. On examining the pelvis, we found the lower aperture tolerably well formed, but the distance betwixt the jutting out of the os sacrum, to the Symphysis of the pubis, was only about two inches and a half, and the prominent line, in the body of the pelvis, which makes a part of the brim of the pelvis, was as sharp, as that which I have described, belonging to Mr. Gibson, but more prominent, which sufficiently accounts for the laceration, and bursting of the neck of the womb.

In

CASE IV.

In the latter end of January, 1791, I was called, along with my late son, Dr. White, to visit the wife of John Collings, aged 36, in Cockpit-hill, Manchester. She was in labour of her third child, and was attended by Mrs. Pollit, the Midwife. She had enjoyed good health, and nothing material had happened in her two former labours. It is sufficient for my present purpose, to say, that she was dying when we were called to her, and she expired soon after, without any attempt having been made to deliver, Dr. White opened the body the next day, and found the child and Placenta in the cavity of the abdomen. It had passed through a laceration of the upper and anterior part of the vagina, transversely and inclining to the right side. I was not present at the dissection, but my son preserved the uterus and vagina, which I had an opportunity of seeing. I have no notes to inform me, whe-

ther the body of the os pubis presented that prominent sharp line, sufficient to cut or lacerate the vagina, but from the circumstances attending this case, and from what I had observed in the preceding one, I am much inclined to think it not improbable.

It has been proved, that labour pains are sufficient to rupture a blood vessel, at or near the groin or vagina. The blood had distended the labium pudendi, and Perinæum to an enormous size, and at last had burst through the integuments, discharging a great quantity of blood; and in one instance, the patient bled to death.

It has been proved that labour pains are sufficient to press both the head and shoulders of the child against the crest of the os pubis; the coats of the neck of the bladder, and of the vagina, being by that means so forcibly squeezed betwixt two hard bodies, a partial mortification has

has been brought on; and when the slough has separated, the urine has burst into the vagina, and has continued to flow that way, instead of going through, its natural passage, the urethra.

It has been proved, that the labour pains are sufficient to press the uterus and peritonæum against the sharp prominent line, on the body of the pelvis, so forcibly as to cut through, lacerate, or rupture the uterus and Peritonæum, in such a manner, as to permit the child to pass into the general cavity of the abdomen.

Some of my readers may still deny that a lymphatic vessel, can by its own contractile power, be ruptured by the pressure of the child's head against the brim of the pelvis, by stopping the circulation of the lymph.

They may likewise possibly deny that a partial mortification, producing a slough, can be brought on a lymphatic vessel,

vessel, by the gravid uterus being pressed against the prominent line on the brim of the pelvis, on the body of the pubis, when that line forms only an obtuse angle.

But they cannot deny that the same sharp bone which cuts through and lacerates the uterus and peritonæum, will also cut through or lacerate all the intermediate soft parts which lie betwixt the uterus and that sharp bone.

That the principal lymphatic trunks from the lower extremities, labium pudendi, nates, groin, lumbar and hypogastric region, do lie upon, and wrap over that prominent line on the body of the os pubis, which in some subjects is so sharp, is proved by injections and dissections of these vessels.

The following plates may not be necessary to my anatomical readers, but to others they may serve to elucidate the subject.

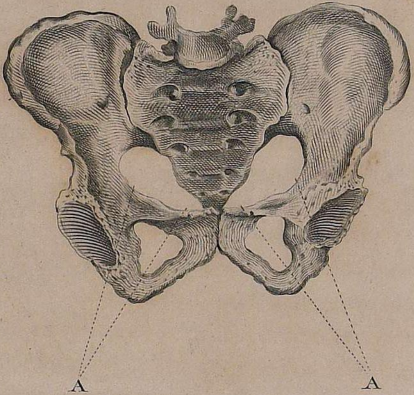
Plate the First

Is taken from a female pelvis, at present in my museum, belonging to Mr. Gibson. The dimensions of the pelvis, from the Symphysis of the pubis, to the jutting out of the os sacrum, without the cartilages, is four inches and a quarter, and from one Ilium to the other, at the brim, is five inches.

The dotted lines at A. shew the prominent line, of the brim of the pelvis, on the body of the os pubis, which in this subject is as sharp as some table knives, for the space of two inches, and jagged like a saw, extending from the crest of the pubis, to the end of that bone, which joins the Ilium. The principal trunks of the lymphatic vessels, which pass under Pourpart's ligament, wrap over this sharp edge of the bone, and dip down into the pelvis.

I am

Pl: 1



I am informed, that Dr. Combe, physician to the British Lying-in Hospital, in Brownlow-street, Long Acre, is possessed of a pelvis, where the prominent line, on the body of the pubis, is nearly as sharp as this. I have, in my possession, several pelvises, where the prominent line, forms angles of different degrees.

Plate Second and Third

Are taken from preparations of the lymphatic vessels made by my late son, Dr. White, fifteen years ago when he was house pupil and assistant to the late Mr. Cruikshank. They are not given to shew any particular structure or excellence, for by the damage they sustained in the carriage from London, and by frequent handling, many of the smaller lymphatics have burst, and the quicksilver has escaped, and some others are obscured by repeated coats of varnish, but I have been contented to give

these,

these, because no other plates, which have been published, exhibit these vessels in such a point of view as properly to convey my meaning.

Plate the Second

Shews an injection of the superficial lymphatic vessels of the left lower extremity.

A. Poupart's ligament.

B. Marks out the situation and extent of the sharp edge of the os pubis, with the lymphatics wrapping round it, and dipping down into, the cavity of the pelvis.

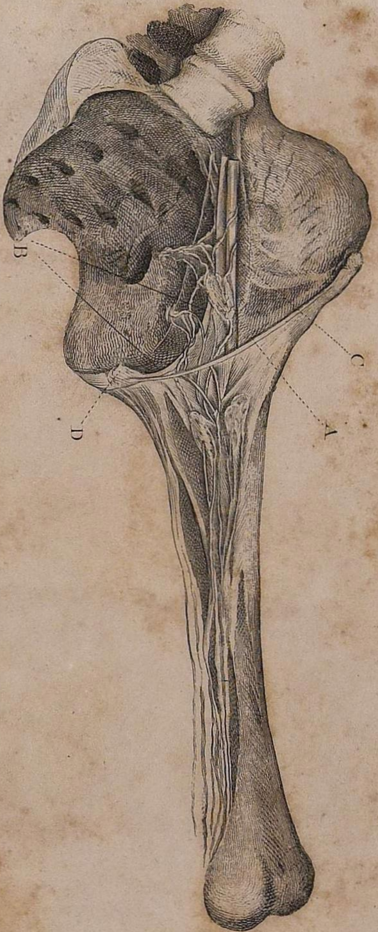
C. Bougies passed into the Iliac artery and vein, which have the deep seated lymphatics upon them.

D. The Symphysis pubis.

Plate Third

Shews an injection of the deep seated lymphatic vessels which accompany the crural

Pl: 2



Pl: 3

Wm. Thomas Sc

crural artery on the right thigh of the same subject with the foregoing.

A. The crural and Iliac arteries, with the lymphatics passing up along with them.

B. The thigh bone.

C. The os Ilium.

Plate the Fourth,

Together with the history of the case, is copied from my CASES IN SURGERY, PART the FIRST, p. 139, pub. in 1770.

" *Dissection of an arm on which the Opera-*
" *tion for the Aneurism had been per-*
" *formed.*

" About two years ago a woman died
" in the Lunatic Hospital in Manches-
" ter, who, about fourteen years before,
" had undergone the operation for an
" aneurism, occasioned by bleeding in
" the right arm, which perfectly suc-
" ceeded. As opportunities of examin-
" ing the state of the parts after death
" seldom

"seldom occur, I was determined not "to miss that which now offered. I "accordingly injected the axillary ar- "tery with wax, and then took off the "arm at the joint, and dissected it. The "annexed figure is a true representation "of its appearance.

"As I do not recollect to have seen "or heard of a [20] preparation of this sort, "I imagine it will not be unacceptable "to the public. We may here not only "admire the wonderful power of nature "in continuing the circulation, when "almost three inches of the princi- "pal artery were obliterated, but sur- "geons may be encouraged never to "despair of success in a similar opera- "tion:

[20] "MOLINELLIUS, in the Act Benon. vol. i. "part 2, page 72, has given us the history and a "drawing of an aneurism similar to this, which he "dissected, but it does not appear that the arteries "were injected, or the parts preserved. I am obliged "to Dr. Hunter for this note, as I am not in possession "of the book."

Pl. 4

Wm. Thomas sc

" tion: for in this case the humeral ar-
" tery was tied above it's division into
" the radial, ulnar, and interosseous ar-
" teries: and the small capillary arteries
" appear to have undergone so great a
" dilatation, as when taken together, to
" exceed in diameter the trunk of the
" humeral artery, which, by their [21] tor-
" tuous anastomoses, they fill again be-
" neath the obliteration.

" My worthy friend Dr. Hunter has
" done me the honour to give this pre-
" paration a place amongst his valuable
" collections.

Plate Fourth.

" A fore view of the preparation.
" The dotted lines at A express the ex-
" tent of the obliteration of the trunk of
" the artery.

Case

P

21 " For a curious investigation of these tortuous
" convolutions, see Dr. Hunter's observations on aneu-
" risms in the Medical Observations and Inquiries,
" vol. ii. p. 411, and Molinellius in the Act. Benon.

I have given this plate and explanation to shew what has actually taken place in the arterial system. That the same will be effected in the lymphatic system there can be no doubt.

CASE V.

Dr. Ferriar having given a translation of the following case from the Medical Museum, it may not be disagreeable to my readers to have a copy of the original from a volume entitled

" COMMENTARII SOCIETATIS RE-
" GIAE SCIENTIARUM GOTTINGENSIS
" TOMUS II. AD ANNUM MDCCLII.

I. GOTTF. ZINII SODALIS EX-
" TRAORDINARII OBSERVATIONES EX
" CORPORIBUS MORBOSIS.

OBSERVATIO I

" OEDEMA PEDIS EX PRESSA VENA
" CRURALI."

" Puerpera triginta fere annos nata, " partum valde difficilem perpessa, lo- " chiorum

" chiorum fluxum, dum parum caute
" curam corporis habet, plane turbat.
" *Paulo post pes dexter totus ab inguine*
" *ad calcem cum labio vulvae dextro œde-*
" *matoso tumore adfligitur* accedente si-
" mul appetitus defectu. Quem ad tu-
" morem tollendum, omnis generis,
" quae ars medica suppeditat, subsidia
" in usum vocantur, irrito tamen suc-
" cessu. Nec diaphoretica, nec diure-
" tica, nec purgantia opem adferunt.
" Ex vapore spirituosorum & frictione
" summus dolor. *Cutis ipsa in femore*
" *inciditur, ut per fonticulum aqua eva-*
" *cuetur, sed paucae tantum guttulae*
" *effluunt. Serum enim in tela cellulosa*
" *in gelatinae tremulae naturam fere*
" *abiit, omni liquidiori parte resorpta.*
" *Bimestri tandem spatio exacto astmatica*
" *moritur.* Sectione instituta apparent
" glandulae quaedam inguinales, scirr-
" osae, valde auctae, venae crurali cir-
" cumpositae, quae lumen illius valde
" diminuerunt.

 Before

Before I make any remarks upon this case, it will be necessary to state that this paper was not read in the Gottingen Society, before the year 1752. At that time it was generally believed that the veins were the system of absorbents. The discovery that this office belonged to the lymphatics, was not published before the year 1755. This accounts for the title of this OBSERVATION *Œdema Pedis ex pressa vena crurali.* For there were no varicous veins, no discoloration of the skin, nor any symptoms to indicate a stoppage of the venal blood. He could not therefore, upon any other principle, have entitled this paper, *An œdematose foot, (or rather limb) from a compression of the crural vein* As the nature of the patient's death is omitted in the translation, which appeared in the Medical Museum, and was copied by Dr. Ferriar, and is, in some other respects, defective, in point of accuracy, I will take the liberty of giving another, perfectly

perfectly literal, especially as this case has been brought to prove that she died of *Phlegmatia alba dolens puerperarum*.

"A lying-in woman, of nearly thirty "years of age, *after a difficult labour*, had "the Lochia greatly disturbed, for want "of proper care. Soon after, *the whole* "*right limb*[22] *from the groin to the heel*, "together with the *right labium pudendi*, "was attacked with an œdematose swel-"ling. At the same time, she was also "seized, with loss of appetite. Every pro-"bable means, afforded by the art of heal-"ing, was used to remove the swelling, "but without success. Neither Diapho-"retics, nor diuretics, nor purgatives "afforded any relief. Spirituous fomen-"tations, and frictions, gave the greatest "pain. *An incision was made, through* "*the skin of the thigh, that the water might*

"*be*

22 When the author makes use of the word *pes*, it is clear he means the whole lower extremity.

" *be drained off, by an issue, but only a few* " *small drops were discharged by it. For* " *the serum in the cellular membrane seem-* " *ed almost to be gone, into the nature of a* " *tremulous jelly, all its liquid parts being* " *absorbed.* At length in the space of " two months, she died *asthmatick*. Upon " dissection, some of the inguinal glands " appeared schirrhous, and much en- " larged, surrounding the crural vein, " which they greatly obscured."

I wish Professor Zinn had been more full in his description of the disease, as well as of the dissection, but many allowances must be made, for his want of that knowledge of the lymphatics, which the present anatomists possess. Thus far however may be concluded, that it was a local disorder, and that she died asthmatick.

It does not appear that she had any particular disorder during her pregnancy, nor previous to the swelling of the limb ;

nor

nor that she had any inflammation of the lymphatics, or of the veins, or inflammation of any kind; nor anasarca, as no water drained off when the incision was made.

If Schirrhous Inguinal Glands were the cause of *Phlegmatia alba dolens Puerperarum*, they would be perceived before the swelling of the limb, and that they do not even generally accompany that complaint, is evident, because the patients would not so constantly and invariably recover from it, without some remains of *schirri*. But enlarged inguinal glands, may be the effect of the disorder. That the lymph however was obstructed, at least, as high as where the lymphatic vessels from the *labium pudendi,* join those from the lower extremity, appears perfectly clear.

CASE VI.

The case of Jane Waters having been differently represented by two gentlemen

men, and having been brought forward, for the purpose of overturning my theory of the disease, and to lay a foundation for others; to combat my method of cure, and to substitute one which should shorten the duration of the disorder; I think I have a right both in honour and equity to avail myself of every source of information in my power, especially since the name and place of abode of the patient have been stated, in order to give credit and authenticity to the case. As I have advanced some novel doctrines, and shall produce some facts which have not yet appeared, the public have a right to expect this information from me, and I doubt not, but upon a fair and just statement of the case, the reader will see, that it is so far from militating against my doctrines, that it is the fullest vindication of them that could possibly have occurred. I am so confident of this, that I durst rest my defence and my reputation upon this case, if I had

had no other to produce.

Jane Waters of Garden-street, Salford, *in her second pregnancy, and in the 27th year of her age,* enjoyed as good health, as any person in that situation, having no particular complaints. *After a very laborious parturition which had continued four days, she was delivered by Mr. Charlton, on the 26th of December,* 1797, *as she lay upon her left side.* In thirty hours after delivery, she was attacked with violent pain in her loin, and hip, on the left side, and afterwards in the ham and knee. She experienced no rigors, nor other symptoms of fever, before the pain seized her. In about two days after, the swelling began to appear, first in the groin, labium pudendi, and upper part of the thigh, on the left side, and descended to the leg and foot; the swelling was elastic, tense, uniform, and attended with great pain, particu-

larly upon being moved. The limb was warm, but not hot. Her thigh was nearly as thick as her waist. There were no red nor purple streakes upon it, nor any signs of inflammation; the skin was of a paler colour than natural. Leeches were twice applied, eight the first time, which procured a plentiful evacuation, and six the second time; Rochelle salts were given, and frequently repeated, with proper effect, and a large blister was applied round the knee. The swelling began to subside, first in the groin, *labium pudendi*, and upper part of the thigh, from which it nearly vanished, before the expiration of the month, but remained in the leg and foot. The pain in her loins, as she expressed it, continued very severe; and in about a month after her delivery, just before she removed to Newton Heath, she perceived a tumour forming there, but upon examination, this proved to be below the

loin

loin, on the lower and back part of the pelvis, on the left side, so low, that she could not sit on that side. This tumour encreased to the size of a child's head, and in about fifteen weeks after her delivery, it burst, and discharged a large quantity of matter, and healed in a week's time; when the swelling in the leg and foot entirely subsided. She never was able to walk after the attack of *Phlegmatia alba dolens* till the abscess burst, and she was confined eleven weeks to her bed, at Newton Heath. She recovered very fast after this time, has born another child, without experiencing any return of her disorder, or any inconveniences in consequence of it, as she enjoys perfect health, and is as active as possible. The cicatrix is situated near the edge of the lower part of the sacrum, on the left side, is not a superficial one, but hollow, and deep enough to contain the end of a finger.

This woman had neither Anasarca Gravidarum, Thoracic Inflammation, Puerperal fever, Inflammation of the absorbents, nor any symptoms of inflammation whatever. She had the *Phlegmatia alba dolens puerperarum*, in its perfect, simple, uncomplicated state, but its termination was singular. In the treatment of the disorder, the antiphlogistic plan was pursued under the direction of one of its greatest advocates, and yet it proved the most tedious, painful, and distressing case of any we have upon record.

In stating this circumstance, I do not mean to cast any reflection upon the gentleman who attended this poor woman, whose professional abilities are well known; for so unusual a termination could not be foreseen by the medical practitioner. It is clear however, that the plan pursued, did not answer the purpose of shortening the disease.

The

The abscess was neither an Iliac, nor a lumbar one, nor one under the fascia lata; in the acetabulum; at the symphysis of the pubis; at the junction of the ossa innominata with the sacrum; in the *labium pudendi*; in perinæo; nor in ano. It was not a metastasis, for it formed where the pain first commenced, and continued. It was not critical, in respect to the disorder in question, for the pathognomonic and most of the other symptoms which usually attend the phlegmatia alba dolens puerperarum, went off about the usual time.

It was decidedly a collection of pus, formed within the pelvis on the left side, and by its own gravity had descended through the great sciatic notch, along with the sciatic nerve, and the blood vessels; it passed under the edge of the gluteus maximus, at the lower part of the sacrum, and burst through the integuments on that side, and I am clear in my opinion

opinion that it was owing to coagulated lymph from the ruptured lymphatics, on the brim of the pelvis, which had lodged behind the peritonæum, and could not, as usual, be absorbed. It had acted therefore as an extraneous or foreign body, and caused a formation of matter, which had made its way out, in the manner above described, which of all others was the most easy, and most natural. It could not get into the open cavity of the pelvis, without bursting through the peritonæum, and it could not rise up over the brim of the pelvis, and pass through Poupart's ligament, without ascending against its own gravity. In the way it took, it had no difficulties to encounter, it would fall down betwixt the ischium and the peritonæum, would insinuate itself into the cellular membrane, and make its way out by the nearest and most direct passage; and the orifice being in the most dependant part of the abscess, the matter would easily drain off, without

without any assistance from art. A full confirmation of this, is, that she not only enjoys perfect health, but all the parts perform their offices. She is as active as ever; and has born another child since, without any complaint.

CASE VII.

In my former inquiry I said that this "is a disorder *sui generis*," and indeed I have never seen any thing similar to it, except in an accident which happened to Mr. R. a corpulent gentleman of about 70 years of age, and whose weight was upwards of 16 stone. He had the misfortune on the 24th of July, 1798, to fall down a precipice at Runcorn, whose perpendicular height was nearly thirteen feet, at the bottom of which, were several large rough stones. He fell upon his left hip. Mr. Eaton, an ingenious surgeon, at Horton Castle, saw him immediately after the accident, and upon examination, could not find any disloca-

tion,

tion, but could distinctly perceive a grating of the bones, when he moved the hip joint, and had no doubt of a fracture, but could not say where it was. I was requested to attend him, but Runcorn being near thirty miles from Manchester, I did not see him till the next day, when I was immediately satisfied, that there was a fracture; yet it was decidedly not in the body of the thigh bone, in the neck, or in the great trochanter. I therefore had no hesitation in saying, that it was in the pelvis, but on account of his bulk, and some little tension and swelling, which had come on, it was difficult to determine by the touch, in what part of the pelvis the fracture had taken place. He had passed a restless night, and was a little feverish; neutral draughts, opium, and an opening apozem were directed for him, and saturnine applications to the affected parts. No more swelling came on during the first or second week, than what might be expected

from

from the contusion on the external part of the hip, but at the expiration of a fortnight, a sudden swelling appeared in the upper part of the thigh, *and the left side of the scrotum*, and extended itself downwards to every part of the thigh, leg and foot, the tension of the skin being extreme, the tumour not cold, nor pitting like a leuco-phlegmatia, but warm, hard, tense, glossy, of a pale white colour, and exceedingly painful. There were no red streakes running along the course of the lymphatic vessels, nor any swelling or inflammation in the glands. Leeches were applied, fomentations used, and the intestinal canal was kept sufficiently open. This swelling continued some weeks, during which time, he was confined to his bed. I must observe that neither the right side of the scrotum nor either of the testicles were in the least swelled. The first parts which began to subside, were the upper part of the thigh, and the scrotum.

As soon as this swelling made its appearance, I had no doubt what was the cause of it. Whoever will examine a skeleton, will immediately be satisfied, what part of the pelvis will be fractured, if a sufficient force be applied to the hip joint, that is, to the great Trochanter, which was the part that would first come into contact with the ground. It would be fractured in the body of the os pubis, which is the weakest part of that oval ring, which forms the brim of the pelvis, exactly where the lymphatic vessels wrap over the edge of that bone, and of course must inevitably rupture those lymphatic vessels, which are ruptured in the *Phlegmatia alba dolens Puerperarum*. How can we possibly account for the swelling *of the left side of the scrotum only* at the expiration of a fortnight, but from the rupture of the lymphatic vessels of that side of the scrotum, and the mouths of those vessels healing in that time, and totally obstructing the passage of the

lymph?

lymph? There cannot be a doubt upon this head, if we consider that *the superficial lymphatics of the scrotum enter the upper and inner inguinal glands, and the lymph from them is carried under Poupart's ligament, and over the brim of the pelvis, on the body of the os pubis,* precisely in the same manner as those of the labium pudendi. Nothing therefore can be more similar than this case is to the *Phlegmatia alba dolens Puerperarum.* Here was the same kind of swelling, confined to the inguinal, hypogastric, and lumbar regions, and the whole limb and genitals on one side. The lymphatic vessels were ruptured in the same place, and by the sharp edges of the same bone, with this difference only, that in one, it is sharp by nature, in the other was become so by being fractured. Time, place, and all the symptoms and circumstances agree to make the diseases as perfectly similar, as can possibly happen, considering the one case to be that of a male, the other of a female, the first occasioned by accident, the other by parturition.

If it be granted me that this swelling was occasioned by the broken bone, injuring the lymphatics, how can we account for it upon any other principle, than that the lymphatic vessels which pass over, and wrap round the body of the os pubis, were ruptured by the sharp edges of that broken bone, the mouths of which were healed up, and rendered impervious? At the expiration of a fortnight, those lymphatics below the cicatrix would be gorged with lymph, because they could not empty themselves into the thoracic duct, until the anastomosing vessels were sufficiently enlarged, to carry, with facility, all the lymph from the diseased and swelled parts.

If this had proceeded from an inflammation, brought on the lymphatics, by the accident, it certainly would have appeared in less than a fortnight, and would have shewn itself through the skin, by its colour, either red or purple.

If it had proceeded from inflammation only, it would scarcely have continued so long as several weeks, but if it proceeded from the lymphatics being rendered impervious, by the cicatrix, the lymph would most probably take that time, in finding itself a *complete* passage, through the anastomosing vessels.

I will now recapitulate, in a brief manner, an account of the NATURE and CAUSE of this disorder.

When the brim of the pelvis forms a prominent line on the body of the os pubis, and is as sharp as an ivory paper folder, or as some knives, and jagged like a saw, and the gravid uterus, by the violence of the labour pains, forces the lymphatics against this sharp edge, it must cut or lacerate those lymphatic vessels, which wrap round it, and dip down into the pelvis, and they will discharge

charge their contents. In some cases the extravasated lymph will be immediately absorbed by the lymphatics in the neighbourhood. In others it will accumulate, coagulate, and give pain, some days prior to the swelling of the limb, by separating the peritoneum from its connections with the adjacent parts, and at last will be absorbed. But in some few cases, it may not be absorbed, but produce an abscess. In a space of time, generally betwixt twenty-four hours and six weeks, the orifices in the ruptured lymphatics will close, and they will be gorged with lymph, which will be impeded in them, but it will continue to flow in those which have not been ruptured, particularly in the deep seated lymphatics which accompany the Iliac artery, and by anastomosing with those which have been ruptured, will prevent any material injury for the present, and in time will entirely supply their place. By the obstruction of the lymph, the groin, la-

bium pudendi, and upper part of the thigh swell, the tumour gradually extends towards the leg and foot, and grows very painful, white, tense, elastic, hard, glossy, and uniform. The pain is occasioned by the great and sudden distension of the lymphatic vessels; the whiteness by the parts being filled with lymph, and compressing the blood vessels so much, that neither arteries, nor veins, appear externally. The tenseness, elasticity, hardness, and glossiness, depend on the great distension of the lymphatic vessels, which do not easily give way; the uniformity of the swelling on the distension of the cutaneous lymphatics, which are innumerable. By this great distension, and consequent compression, the exhalents are prevented from secreting so much lymph [23], and consequently there

is

[23] In the beginning of October, 1800, Mrs. G. had her breast extirpated by Mr. Gibson, for a schirrhous which had subsisted for two or three years; attended

is not so great a supply. The lymphatic glands sometimes grow painful and swell, which is owing to the *vasa inferentia* sending the lymph into them, quicker, than the *vasa efferentia* can discharge it.

Pains

attended with an enlargement of the axillary glands, a few of which also were removed. Some weeks after the operation, the integuments of the breast and top of the shoulder, were attacked with swelling, which gradually extended down the arm, to the hand and fingers. The parts nearest the breast were of a schirrhous hardness, scarcely pitting upon pressure; This character became less and less distinct till it ended in the hand and fingers in true œdema.

The swelling continued to increase till the skin was extremely tense, when the patient was attacked with jaundice to a very high degree. Every part of the skin exhibited a more or less intense yellow, except the arm affected, *which remained unaltered in its colour and continued so for many days.* In a short time, she was attacked with general dropsy, when the arm affected became more swelled, and for the first time partook of the yellow tinge of the other parts of the body, which continued till her death.

Mr. Gibson has favoured me with the above case, which proves, that the action of the exhalants was for a time suspended, or the swelled arm would have become yellow as soon as the other parts.

Pains will sometimes attack parts, which have neither lymphatic glands, large nerves, blood vessels, nor lymphatics, which can only be accounted for from sympathy [24]. The words *calidus* hot, or warm, when speaking of the swelling of the limb, are made use of in contradistinction to *leuco-phlegmatia*, in which the limb is white and cold; in

S this

24 Many years ago I was called to visit a young gentleman at Wigan, who had a violent pain in his knee, and was unable to move without crutches. The The late Doctors, Allcock and Pemberton, men at that time, of as great eminence in their profession, as any in the counties of Lancaster or Chester, had been em-employed for him. Fomentations, blisters, and many other applications were made use of to the knee, without any good effect. Neither the professional gentlemen, the Patient himself, nor his friends, had the least suspicion, of the complaint being in any other part, but that joint. As soon as I saw him, and had examined his knee, not finding any reason for the disorder being there, except the pain, I asked him, if he had no pain or swelling in his hip? (as I had seen complaints, similar to this, where the seat of the disease was in this joint,) but was answered in the negative. I however desired to see the hip, when it appeared evident to his friends,

this disorder it is white and warm. When speaking of encreased heat, it is to be understood of the whole body, not of the limb alone, as that does not appear to be hotter than the other parts of the body. There is heat in all fevers, but that does not imply inflammation; every fever is not inflammatory. There is a quick pulse, but that is owing to irritation, by the sudden and violent distension of the irritable coats of the lymphatic vessels.

If you puncture the skin with a lancet, the lymph does not flow out as in anasarca, where it is thin, and is lodged in the cells of the cellular membrane, which communicate throughout the whole

friends, as well as to me, that the hip joint, was half as large again as the other. It proved a tedious case. After many months confinement, an abscess formed there, which burst; several pieces of bone were thrown off by exfoliation, and I attended him, occasionally for several years; but he never had any other complaint in his knee, except the pain, which could not proceed from any thing but sympathy.

whole body. In this disorder you do not puncture the trunks of the absorbents, but the *minima vasa*, only, of the cutaneous lymphatics. The violent pain and distension do not continue many days; the anastomosing lymphatics begin to enlarge, and by degrees carry off the obstructed lymph; but it is many weeks before it has obtained a perfectly free passage.

This disorder has not been known to return in the same limb, though women have had several children, after having had this complaint; because the same accident cannot happen a second time to those lymphatics.

CURE.

Since I wrote my first INQUIRY little has been added to the method of cure, except that of bleeding with leeches by Mr. Trye, which was followed by Dr. Ferriar; the exhibition of Cremor Tartari

tari by Levret, which is also recommended by Dr. Ferriar; the introducing of mercury by Mr. Trye, which was adopted by Dr. Hull; and Digitalis, in the first stage, by Dr. Hull. The following paragraph is copied from the 23d No. of the Medical and Physical Journal, vol. 5th. p. 95, in a review of Dr. Hull's Essay on Phlegmatia Dolens. The Editors say, "Before we proceed to the rest of "the work, we take this opportunity of "mentioning an application for this dis-"ease, which has been used with inva-"riable success, for several years, at one "of the best regulated hospital in Lon-"don, and where our readers will readily "suppose, from the great number of "women annually delivered there, that "instances of the *œdema lacteum*, or "*phlegmatia dolens*, are not very uncom-"mon. It is the practice of that hos-"pital, to apply flannel well soaked in "hot vinegar to the groin of the affected "limb, and to renew it frequently; and

"we

" we are well assured that no other reme-
" dies beyond those necessary to keep the
" bowels regular are ever used, notwith-
" standing the fever, pain, &c. which
" commonly accompany this disease."

I shall only observe, that much must be left to the discretion of the practitioner, who ought to prescribe according to the symptoms and circumstances of the case. No certain rule can be laid down. If the patient be robust and plethoric, the antiphlogistic plan may be pursued with advantage, but if she be reduced by floodings or other evacuations, it would be highly absurd to debilitate her still more. It was said of two physicians of very great eminence, practising physic at the same time at Edinburgh, that one of them always endeavoured *to take away the cause*, supposing *the effect would cease*, the other paid no regard to that rule, but attacked the symptoms, and the latter had the reputation of being the more

successful

successful practitioner. That general rule certainly holds good in the practice of surgery, but in physic it may be otherwise, for *Natura est Medicatrix Morborum*, and we should speak more modestly, and, perhaps, more justly, if we were to say that we had conducted our patient safely through the disorder, rather than that we had cured her. Facts in regard to remedies in diseases, are frequently with great difficulty, ascertained; and what appears to cure the same complaint in one person, may not succeed in another, and yet the patient may do well. When this disease is complicated with others, as Phlegmon, Erysipelas, Anasarca, Thoracic Inflammation, Inflammation of the absorbents, Puerperal Fever, &c. it must be treated accordingly.

FINIS.

From the Press of W. Shelmerdine and Co.
No. 5, Hanging-Ditch.